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Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a written order for the same accompany the paper.)

The Life and Work of James Carroll.*

By JOSEPH McFARLAND, M. D., Philadelphia, Penn.

To us whose lives are full of bustling activities, and who are still in the strife of endeavor, hoping for the crowning achievement that shall make our work worth while, it is a pleasure to spend a moment in affectionate admiration of one whose fight has been finished, whose work has ended, whose ambitions have been realized, who has entered upon his eternal rest and has become a treasured recollection to us all.

The American Society of Tropical Medicine mourns, to-day, the loss of James Carroll, one of the first elected honorary members, who made the first public address, at the first general meeting of the Society, in Huston Hall, at the University of Pennsylvania, Jan. 11, 1904, upon that work with which he was so closely identified, "The Etiology of Yellow Fever."

James Carroll was a remarkable man! He was such stuff as pioneers are made of—a composite of physical strength and endur-

*Memoir read at the Fifth Annual Meeting of the Society of Tropical Medicine, Baltimore, March 28, 1908.

ance; mental keenness and sagacity; moral rectitude and courage; earnestness, gravity, sincerity and a pertinacity bordering on obstinacy. He was one of those rare men who make their own careers, not accepting those conditions into which accident brings them. He took life's burdens upon his shoulders without complaining and steadily forced his way beyond the common herd, by whom he was surrounded, to higher and nobler opportunities of which they never dreamed. And against what odds he fought the great battle of his life! A runaway boy without friends; an immigrant in an inhospitable country; an education abruptly ended in his fifteenth year; a private soldier in the United States Army with years of monotonous life in Western posts! These were his beginnings, yet see with what achievements his life ended! He was born in Woolwich, England, June 5, 1854, his parents being James Carroll and Harriet Chiverton, and attended Albion House Academy, Woolwich, until 1869, when he ran away from home, Dr. Kelly tells us, because of a disappointed boyish love, and came to America.

He went first to Canada, where he spent the first years of his life in "roughing it" in the backwoods and doing hard work for little pay. Finding no prospects in Canada, he came to the United States, where he suffered great discouragements in finding a place for himself, so that in sheer desperation he, to use his own words, "drifted into the Army, enlisting January 9, 1874, before he was twenty years old. He served as a private [corporal and sargent?] in Company E, First Infantry, from January 9, 1874, to January 9, 1879, and as private [sargent and first sargent?] in Company C, Seventh Infantry, from January 22, 1879, until September 14, 1883—nine long years.

His service was mostly in the West, in Dakota, Montana and Minnesota. It was at Fort Snelling, Minn., that he met Hospital Steward Wm. Grant, who seems to have been the first to suggest to him the idea of securing advancement by becoming a hospital steward himself.

The idea appealed to Carroll's slumbering ambition, and embracing such opportunities as were kindly offered him by Grant and making good use of his time, he was able, after a year's study, to pass an excellent examination under Major W. C. Spencer, Medical Corps, U. S. A., and was appointed Hospital Steward, U. S. A.,

September 15, 1883. He remained a hospital steward until May 21, 1898—15 years. In this new capacity his work continued in the West and his interest in medicine increased until he determined to study it as a profession. To accomplish this end he applied for a detail in order to study at St. Paul, Minn., but to his disappointment, the application was refused and his regular work continued until 1886, when he took a leave of absence, went to New York, and pursued a year's course at the Medical School of the University of the City of New York. His leave of absence having expired, he returned to the Department of the Platte, and resumed his work as hospital steward, continuing until 1889, when he was ordered for duty to Fort McHenry, Maryland.

He was not now alone, for in May, 1888, he had married Jennie M. Lucas, of Cleveland.

It may have been that the thought of other lives than his own to provide for, stimulated him to redoubled efforts, but in his new station he was happy in coming into close contact with Capt. C. B. Bryne, U. S. A., Post Surgeon, who sympathized with his aspirations and further stimulated his ambitions. He was now in a position where the continuance of his studies was possible, so he entered the University of Maryland, Baltimore, and was granted his degree in medicine in 1891. Immediately after this he took post-graduate courses in Pathology and Bacteriology at the Johns Hopkins Hospital, and became acquainted with that interesting family of which Prof. Welch speaks so fondly, composed of Councilman, Flexner, Lafleur, Thayer, Barker, Abbott, Nuttall and Reed.

Here seems to have been the beginning of an acquaintance that meant so much to Carroll, for it was through Reed, and with Reed, that his best work was done.

In 1893 he was detailed to the World's Fair at Chicago for special work in assisting Capt. L. A. LeGard, Medical Corps, U. S. A., and while there is said to have attracted the attention of Surgeon George M. Sternberg, because of his fitness for experimental work. At the close of the Fair he was transferred to the Army Medical Museum, Washington, D. C., where he remained associated with Reed. At this time the Army Medical School was established in Washington, Reed being made Professor of Pathology and Bacteriology, and Carroll Assistant Professor of the same subject. In 1895 Carroll was made a demonstrator in the

Columbian (now George Washington) University, where Reed was Professor of Pathology and Bacteriology.

In 1897, at the instigation of Surgeon-General G. M. Sternberg, U. S. A., Reed and Carroll devoted themselves to the investigation of *Bacillus x* and *Bacillus icteroides*, Sanarelli. On May 22, 1898, Dr. Carroll was commissioned Contract Surgeon and First Lieutenant.

Early in 1900, yellow fever appeared among the American troops at Havana, and during the summer it became quite prevalent among the Americans and Spaniards in and about the city. In order to take advantage of this opportunity for continuing the study of the etiology of the disease, a board of medical officers was ordered to Havana for the purpose.

It was composed of Major Walter Reed, Surgeon, U. S. A.; Lieutenant James Carroll, Assistant Surgeon; Dr. Jesse W. Lazear, U. S. A., and Dr. Aristides Agramonte.

This is the commission that has become so famous, but of which only one, Dr. Agramonte, now survives. The commission reached Havana June 25, 1900, and within a day or two was organized and work begun.

It was unpromising business. The long and painstaking researches of Sternberg, and the mistake of Sanarelli, that grew every day more certain, were behind them and with them. But a new field of activity made possible by the great work of Manson and Ross upon malaria, and the suggestions of Finlay, opened before them, and after having satisfied themselves that Sanarelli and all the older workers were wrong, they turned to the insect hypothesis, greatly aided by Finlay, who had already fixed upon the mosquito now known as *Stegomyia fasciata*, as the probable host of the yellow fever parasite.

The work of the commission is too well known to need prolonged description, and Professor Welch has briefly synoptized it as follows: The commission proved,

1. The futility of Sanarelli's claims,
2. That the virus of yellow fever is in the blood,
3. That the virus is conveyed by the *Stegomyia* mosquito,
4. That the patient is a source for transmission only in the first three days of the disease,

5. That the virus must undergo an incubation period in the mosquito of twelve to fourteen days.

But we are reviewing the work of the commission and neglecting the story of the men who composed it. The most tragic part of their history was told by Carroll (*N. Y. Med. Journal*, February 6-13, 1904) in his address before this Society in the following words:

"Two separate lines of work now presented; one, the study of the bacterial flora of the intestine and anaerobic cultures from the blood and various organs; the other, the theory of the transmission of the disease by the mosquito, which had been advanced by Dr. Carlos Finlay in 1881. After due consideration it was decided to investigate the latter first. Then arose the question of the tremendous responsibility involved in the use of human beings for experimental purposes. It was concluded that the results themselves, if positive, would be sufficient justification of the undertaking. It was suggested that we subject ourselves to the same risk and this suggestion was accepted by Dr. Reed and Dr. Lazear. It became necessary for Dr. Reed to return to the United States and the work was begun by Dr. Lazear, who applied infected mosquitoes to a number of persons, himself included, without result. On the afternoon of July 27, 1900, I submitted myself to the bite of an infected mosquito applied by Dr. Lazear. The insect had been hatched and reared in the laboratory, had been caused to feed upon cases of yellow fever, two of them severe, and two mild. The first patient, a severe case, was bitten twelve days before; the second, third and fourth patients had been bitten six, four and two days previously, and were in character mild, severe and mild respectively. In writing to Dr. Reed that night of the incident, I remarked jokingly that if there was anything in the mosquito theory, I should have a good dose. And so it happened. After having slight premonitory symptoms for two days, I was taken sick on August 31, and on September 1 was carried to the yellow fever camp. My life was in the balance for three days, and my chart shows that on the fifth, sixth and seventh days my urine contained eight-tenths and nine-tenths of moist albumin. * * * On the day I was taken sick, August 31, 1900, Dr. Lazear applied the same mosquito, with three others, to another individual who suffered a comparatively mild attack and was well before I had left my bed. It so happened that I was the first person in whom the mosquito was proved to convey the disease.

"On the eighteenth of September, five days after I was permitted to leave my bed, Dr. Lazear was stricken, and died in convulsions just one week later, after several days of delirium with black vomit. Such is yellow fever.

"He was bitten by a stray mosquito while applying other insects to a patient in one of the city hospitals. He did not recognize it as a *Stegomyia*, and thought it was a *Culex*. It was permitted to take its fill and he attached no importance to the bite until after he was taken sick, when he related the incident to me. I shall never forget the expression of alarm in his eyes when I last saw him alive in the third or fourth day of his illness. The spasmodic contractions of his diaphragm indicated that black vomit was impending, and he fully appreciated their significance. The dreaded vomit soon appeared. I was too weak to see him again in that condition, and there was nothing that I could do to help him.

"Dr. Lazear left a wife and two young children, one of whom he had never seen."

Strange pathos runs through this story. It seems as if it was only after his own illness was over and the picture of the dying Dr. Lazear was before him, that he thought of what might have happened to his own wife and children had their positions been reversed.

In 1901 yellow fever broke out in Santiago de las Vegas, near Havana, and Carroll, who had been home on a leave of absence, again went to Cuba to continue the experimental study of the disease, reaching Havana August 11, 1901.

The enthusiastic interest he manifested in the progress made in the study of yellow fever and its prophylaxis, and the numerous papers that he wrote and addresses he delivered upon the subject, are well known to all here.

In 1902, Major Walter Reed, having died after a brief attack of appendicitis, Carroll was promoted to the position of Professor of Pathology and Bacteriology in his place. He continued to be a demonstrator in the Columbian (now George Washington) University until 1903, when he was promoted to be Associate Professor of Pathology and Bacteriology and appointed to succeed Reed as Pathologist to the University Hospital. In 1902 Carroll was also made Curator of the Army Medical Museum, and on October 27, was commissioned First Lieutenant and Assistant Surgeon in the regular Army.

In 1905 he was promoted to a full Professorship, which he retained until the time of his death. His professional work was always a source of interest and pleasure to him and of great profit to his students, who always showed him respect and esteem.

On May 27, 1907, Carroll had conferred upon him the degree of Doctor of Laws by the University of Nevada, in recognition of his scientific and humanitarian achievements. The work he did for his fellowmen was recognized in all countries by professional and laymen alike, yet the true recognition by his Government that should advance his rank appropriately to his service and increase his pay so that the support of his family of seven children could be carried on in comfort, came very late, and it was not until March 2, 1907, that through the influence of his many friends the United States Congress, by special act of legislation, ordered that he be advanced to the rank of Major and made a surgeon in the United States Army.

This distinction he was not long to enjoy. It is supposed by some of his friends that the attack of yellow fever was at the bottom of it all, but that may be sentiment rather than science. At all events, he fell into a lingering illness and died in Washington, September 16, 1907.

“On the overworked soil
Of this planet, enjoyment is sharpened by toil;
And one seems, by the pain of ascending the height,
To have conquered a claim to that wonderful sight.

* * * * *

Life relenting awards the good gift we would have,
But as though by some strange imperfection in fate
The good gift, when it comes, comes a moment too late.”

So from obscure beginning may come magnificent endings! Through his English pluck and dogged perseverance, in spite of deficient education, expatriation, obscurity, isolation in military life, discouragement of all kinds—often in the face of poverty—James Carroll rose from the ranks to become one of the chief ornaments of the Army Medical Service, and one of the distinguished of his country.

**Annual Report of the Dean of the Medical Department of
the Tulane University of Louisiana,
May 20th, 1908,**

By PROF. STANFORD E. CHAILLÉ, M. D., LL. D.

MR. PRESIDENT: From the foundation of the Medical Department in 1834, the total number of graduates, including those of this day, has been 4,115 in medicine, and 404 in pharmacy. I have helped to educate all of the medical graduates, except six hundred and ninety, and in addition, several thousands of students who were never graduated by our college.

Beginning with eleven students in 1834, the annual number gradually increased to one hundred and eighty-eight in 1851, when I first became a student. My official experience began March 20, 1858, and was subjected to remarkable vicissitudes of fortune, as indicated by the following facts: There were four hundred and four students in 1860, and only ninety-four in 1861; our doors were then closed for three years and there was not one student; there were two hundred and thirty in 1866, and only one hundred and five in 1874; the number gradually increased to two hundred and twenty-three during the session of 1884-5, after which I first became Dean; since then the number has continually increased until the present session, when the number was five hundred and fifty-six, the greatest number that ever attended, and an increase of thirteen students over the number that attended the preceding session. However, the actual gain over last session is greater than is indicated by this increase of only thirteen, because thirty more undergraduate medical students, who, financially and otherwise are of most consequence, attended this session, and this number exceeded by thirteen the loss of seventeen pharmacy and post-graduate students, who are of much less consequence to the undergraduate Medical Department.

The revenue from students' fees has correspondingly increased, notwithstanding the prevailing "hard times," and has reached the maximum amount ever collected. With this increase of students and of revenue, there has been notable progress in all other essentials, such as: in the number of teachers, in the efficiency of their instruction, in the addition of other educational advantages and in the requirements for graduation; so that the present session has surpassed all others and has greatly surpassed all except the preceding session.

Rome, in its best days, required every officer to take oath that, during his term of service, no detriment should be thereby inflicted on the Republic.

About to end my official career, it is to me a source of infinite satisfaction that during my twenty-three years of service as Dean, the prosperity of the Medical Department has continually increased, and has now attained its highest summit. Hence, I am justified in the belief that my official services, as demonstrator and professor, as well as Dean, have inflicted no detriment on the college to which I have devoted the chief labor and ambition of my life.

There attended this session one hundred and thirty-seven students eligible for graduation in medicine, the number to be graduated this day is one hundred and two, and there will also be twenty-four graduates in pharmacy. As a professor for forty years, and as Dean for twenty-three of these years, I have signed more than two-thirds of all the diplomas ever issued by the Medical Department. The diplomas of the one hundred and twenty-six graduates of this day are the last I shall ever sign, and I avail myself of this final opportunity to address very briefly these last of the Medical Department's professional sons in whose parentage I have shared.

GRADUATES OF 1908: It has been a source of very great gratification to preside over so many courteous, considerate and manly men. You have been given greater educational advantages than enjoyed by any of your predecessors, greater knowledge has been required of you and you are their superiors in medical knowledge. Perseverance in the labor, the self-denial and the devotion to duty whereby you have gained your diplomas will insure your success outside as well as inside of college walls.

The knowledge you have gained gives you enviable and beneficent powers, for it enables you to relieve physical suffering, prolong life and prevent disease; to elevate your profession in public estimation; to increase the fame of the Medical Department, and of the University, and, by these services to others, to earn for yourselves the reputation and success that are essential to your happiness. You might sooner gain notoriety and money by the selfish, pretentious and deceitful devices of quackery, but rest assured that he who best serves others will best serve himself, and that, only in this way, can you acquire honorable reputation and permanent success.

Your faculty testifies to its hope and its faith that you will use

your knowledge to benefit others, welcomes you gladly to the ranks of the medical and of the pharmaceutical professions and bids you, with the heartfelt esteem your commendable conduct as students has merited—farewell.

RESIDENT STUDENTS OF THE CHARITY HOSPITAL: Included among the 102 M. D. graduates of this day, there are twelve Resident Students of the Charity Hospital. These so-called *ambulance* students have earned the blessings of thousands of our citizens by having given them, when helpless by accident or disease, prompt aid. They have paid me, who in ancient times was also a Resident Student, the exceptional and highly prized compliment of soliciting me to deliver to them the valuable certificates of the hospital administrators testifying to their two years of efficient and satisfactory services in the Hospital.

Once every year there is a competitive examination of about fifty students who become candidates for about ten vacancies that occur among the Resident Students, who now number twenty. This examination is given by a medical committee appointed by the Hospital Administrators, and is wholly independent of the examiners of the Medical Department. As to this hospital examination and all other competitive ones, defeated candidates and their friends often charge that the successful candidates owe their selection to influence and favoritism. I testify that I came to New Orleans in 1851, a stranger, without friends and influence, and yet was appointed a Resident Student, and that I have positive knowledge that, for many years, the students selected by the hospital authorities are among those who also have the best records in the Medical Department.

All of these twelve graduates and Resident Students have given to their medical education at least four or five years, and five of them have given six years, the two last of these years in the Hospital, where their term of service is limited to two years. The practical education thus secured is of such incalculable advantage that one of the most desirable improvements in medical education, yet to be accomplished and most difficult to accomplish, will be the providing of hospital accommodation to every student for a year's hospital training, and the requirement of this training as indispensable to graduation.

The Resident Students of our Charity Hospital are annually

among the very best of our graduates, and such is their superiority in practical knowledge that they promptly gain success and greatly contribute to the reputation of the Medical Department.

The twelve excellent students, accomplished graduates and stanch friends of mine, here present, will now please step to the front, as I call their names, in order that I may present to every one his very valuable certificate, and in order that this audience and they may have opportunity for mutual admiration: Names called—Leon B. Austin, C. Grenes Cole, J. Fred Dunn, Jerome E. Landry, Louis Levy, Andrew C. Mouledous, Henry T. Nicolle, Wm. T. Patton, Edgar L. Sanderson, Joseph H. Sanford, Robt. D. Schimmelpennig, Paul T. Talbot.

Pathology of Tuberculosis.*

By O. L. POTHIER, M. D., New Orleans.

The pathology of tuberculosis presents two aspects, one related to bacteriology in the etiology of the disease, the bacillus tuberculosis, the other involving the lesions produced in the tissue by the presence of the organism and the effect of the toxic products.

At present, three important divisions of the tubercle bacilli are recognized.

1st. The tubercle bacillus of mammals.

2d. The tubercle bacillus of birds.

3d. The tubercle bacillus of cold-blooded animals.

It is not within the scope of this paper to go into minute details about the bacteriology of the subject; but it will not be amiss to say that avian tuberculosis and tuberculosis of the cold-blooded animals play a very small part, if any, in human tuberculosis. The organism, as found in the warm-blooded animals, presents special characteristics, which were brought out especially by Theobald Smith, depending upon the particular animals in which they are found, and it is upon these characteristics that some authors base the differentiation of the different organisms, and which brought about the discussion of the transmission of bovine tuberculosis to human subjects, which is still unsettled. However it may be, we may say, that the type of the tubercle bacillus of mam-

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mals is an aerobic, non-motile, straight or slightly curved rod with rounded ends, 1.5m. to 3.5m. long, and 0.25m. to 0.5m. thick, growing best at 37.5C., though it may grow at 30C., and rarely at 45C. The thermal death point being about 68C. In rare instances, such as in sputum or in thick fluid, it may resist a temperature of 100 degrees C.

It will be useless to go into the detail of the staining of the organism, as it is quite familiar to all. The demonstration of the presence of the tubercle bacillus is the best proof of the nature of the lesion. However, there are other means of establishing a diagnosis of tuberculosis, such as the agglutination reaction, the reaction of Calmette and the tuberculin reaction. It is not within the scope of this paper to discuss these methods, but will say that the agglutination reaction is very unsatisfactory, and has not been adopted as a general routine.

It is not probable that avian, or tuberculosis of the cold-blooded animals, is a cause of tuberculosis in mammals. Cases reported from such infection are far from being conclusive. On the other hand, tuberculosis of the different mammals is clearly related and we may say that all mammals may be infected with tubercle bacilli, the difference being most probably due to the degree of resistance of the individual or species.

The human subject is very susceptible to tubercular infection, as may be observed by the tubercular lesions found at autopsies, some authors claiming that old tubercular lesions are demonstrable in all autopsies, others claiming that from 90 to 95 per cent. of autopsies show old tubercular lesions. These findings also prove that tuberculosis may be cured.

There are several modes of infection in tuberculosis: Tubercle bacilli have been found in the semen of tubercular individuals, and it is possible that they may exist, though they have not been demonstrated, in the ovum. Though we may admit conceptional tuberculosis, yet it has not been conclusively demonstrated. Trans-placental tuberculosis, however, has been produced experimentally in the lower animals and also found in man. Auché and Chambrelent have reported twenty such cases.

Inoculation of tuberculosis is another method of infection. A number of cases have been reported by Ware, Bruns and Ravenel. In the routine autopsies in my department I do not allow anyone

in the department to handle tubercular tissue without gloves, and always warn members of my class against the possibility of infection by handling or touching such tissue. I believe that a careless manipulation of tubercular tissue is dangerous. Inhalation of tubercular material by the nasal passages must be frequent, yet infection through this route is rare.

Ingestion of the tubercular material or of the tubercular bacillus is a much more frequent mode of infection than is generally thought. If we admit this method of infection, it will be an easy matter to explain the frequency of tuberculosis of the cervical lymph nodes. Infection through the stomach and esophagus is rare; as to the possibility of infection from the intestinal tract, there is quite a diversity of opinion, many claiming that as primary intestinal tuberculosis is rare, that infection does not take place here, while others, such as Behring, Ravenel, Dobroklonski, Bisanti and Pansiet, claim that the organism may pass through the mucosa without leaving any demonstrable lesions.

Whatever may be the way in which the organism enters the individual, to produce its characteristic pathological lesion, it must pass through the epithelial coverings and enter the connective tissues. There are three exceptions to this, and they are: When the bacillus develops on the mucosa of the middle ear, in the pulmonary air vesicle, and on the mucosa of the Fallopian tubes. In all other instances, the organism penetrates to the connective tissue and produces characteristic lesions of tuberculosis, the tubercle. The tubercle must be considered as a special reaction of the tissues under the influence of the bacillus, or most probably its toxin. It is a nodular mass composed at first of lymphoid cells, which aggregates at the point of infection; later, appear larger cells, which have some of the characteristics of epithelial cells and called epithelioid cells; later we have the giant cells. The origin of the lymphoid cells is most probably from the blood and adjoining lymph spaces, that of the epithelioid cell is not quite as well explained, though they are thought to come from the leucocytes. The giant cells are thought to come from proliferated endothelial or fixed connective tissue cells.

This mass, which is at first microscopic, enlarges or coalesces with adjoining masses, forming the tubercle which is seen by the naked eye. As it grows and fills up the adjoining healthy tis-

sue, the capillaries are choked with the infiltrating cells and the blood supply is cut off, producing necrosis and degeneration of the cellular elements forming the nodules. This, followed by coagulation necrosis, produces the characteristic caseation found in tuberculosis. This may be accompanied by a hyaline necrosis until the mass is converted into a structureless detritus producing what is known as the yellow tubercle. Coalescence of a number of these areas frequently takes place giving rise to collection of semi-fluid substance, which has a marked tendency to be discharged by the nearest possible path. The final dissolution of the tubercle is frequently if not always accomplished by a secondary infection by pyogenic organisms. This secondary infection is probably more unfavorable than the tubercular condition. After evacuation of the semi-fluid mass, there is left a cavity, the walls of which are ulcerating and still active, continuing the process of infection in the adjoining tissues. Such ending of tubercular nodules is not always the case. In many instances, as demonstrable at autopsies and frequently also in the living, the tubercular areas become limited by a dense capsule or wall of fibrous tissue which surrounds the caseous area and limits its spread. Later, calcareous infiltration of the walls occur and we have what is known as a healed in tubercle. Within this fibrous or calcareous wall, the tubercular process continues and the bacilli may retain their viability for a long period of time. These quiescent tubercular areas may remain dormant for a number of years, or again may become recrudescant and be the starting of miliary tuberculosis.

The foregoing is a description of the tubercular lesion as it appears generally. The general dissemination of tubercle throughout the body is known as general miliary tuberculosis. If it is restricted to certain areas, it is known as localized tuberculosis; such, for instance, is miliary tuberculosis of the lungs, the liver, etc. We understand by chronic caseous tuberculosis accumulation of cheesy masses found in different organs. Chronic ulcerative tuberculosis is the form most frequently present in the lung, giving rise to destruction of tissue called cavities. In many cases, the tubercular process is accompanied by an excess of fibrous tissue formation, producing the form known as chronic fibroid tuberculosis. A rare form is one found especially in the intestines and

larynx and known as chronic hyperplastic tuberculosis; and lastly, a condition which is closely allied to the gumma of syphilis and known as tuberculoma. This is most probably a nodular variety of the hyperplastic form.

The dissemination of the tubercular infection after it has first entered through the point of primary invasion, takes place by several ways. The blood may be the carrier by which the bacilli are spread widely through the body. The lymphatic circulation may also disseminate the infection. We find also tubercular infection taking place in certain organs from translocation of certain fluids, such for instance the intestinal infection from ingestion of tubercular sputum, or the infection of the bladder from a tubercular kidney. The tubercular infection may also spread by continuity and contiguity of tissue.

The sites of tuberculosis are varied, but certain tissues appear more vulnerable. The lung is more frequently infected than any other organ of the body. Next in frequency are the joints, bones, and lymph nodes, then tuberculosis of the mucous membrane other than the lung, tuberculosis of the serous membranes, tuberculosis of the skin, the spleen, the liver, the brain, the generative and urinary organs, the heart and voluntary muscles.

From the above, we see that tuberculosis affects all of the organs of the body in the human subject, and it may be said that the same is true in the lower animals. From statistics of autopsies, all authors concur in the opinion that tubercular infection is found in about 85% of bodies at autopsies and is probably the most frequent and widespread disease of the human race.

Tuberculosis of the Female Genitals.*

By DR. S. M. D. CLARK, New Orleans.

The subject assigned to me by the Chairman of the Committee on Scientific Essays, that of tuberculosis of the female genitals, is relatively a rare disease. Though not frequently met with clinically, still, from its unusual importance it has not received the attention that its clinical significance demands.

“Senn, of Geneva (cited by Murphy), in 2,000 laparotomies,

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found tuberculosis of the genitals in 15 or 20 cases. Hanseemann, in 7,000 autopsies, found tuberculosis in 450 cases in women (16.5%). In 16 of these, or 4 per cent., the genitals were involved. In 6,000 autopsies performed by Merletti, the cause of death from tuberculosis was found in 1,360. In 205 of these the genitals were involved. Of these 205, 34 were in the male, 2.41 per cent., and 172 in females, or 12.6 per cent." In ten years' experience at the Charity Hospital clinics on gynecology, I have not seen more than 20 cases of tuberculosis of the female genitals.

The literature upon this subject is filled with report of cases and statistical reviews of the different types. Among the most notable contributions on this subject from America are Fenger, Williams, Marcey, Murphy and Mayo. In 1903 and 1904 Murphy prepared a most exhaustive analysis of the subject, thoroughly reviewing the literature to that time and dealing in the minute details with every phase of this disease. Anyone especially interested in the subject will find this article replete with details and statistics.

From the standpoint of order of frequency with which the female organs are attacked, the tubes rank first, next the uterus, then the ovaries and the vagina and vulva.

Secondary cases of tuberculosis of the genitals are more frequent than the primary. The sources of tubercle bacilli may be classified in general as hematogenous, lymphatic, contiguity and by continuity. The infection may be either ascending or descending. The direct inoculation from infected semen has been experimentally and clinically proved. Cases are on record where dirty instruments and fingers have been the source of infection of the vaginal tract, being specially apt to occur where abrasions exist. In Murphy's excellent article, a case is reported of tuberculosis of the tubes in which the infection was found to have come from a pulmonary tubercular husband, who, in coitus, would lubricate the parts with his saliva.

We have no pathognomonic symptoms of tuberculosis of the female genitals; especially is this true of the advanced or chronic forms. *Tuberculosis of the vulva* is the rarest form found in the genitals. From my clinical records at the Charity Hospital, I can find but two cases, both of which were secondary.

The clinical picture of this type of tuberculosis begins usually

with discoloration of the skin, with induration tending to spread. These masses are of variable shape and later break down and form ulcers. The ulcers have infiltrated, irregular and undermined margins, and are frequently found to be covered with a yellow crust. In well established cases, there are points in which it will be seen attempts at healing towards the center of the original focus of infection. If unattended, these ulcers will spread upon a large area, with the formation of sinuses and deep destruction of the external genitals. The differential diagnosis of this disease is often attended with great difficulty and has to be reached by elimination. Carcinoma, syphilis, phagedenic chancroid are the diseases from which it is most difficult to differentiate. Mixed treatment and the findings of the microscope will aid in eliminating syphilis. The lack of tendency to bleed, with the evidence of attempts at healing, and with the use of the microscope, carcinoma can be differentiated. Careful microscopical examination of the granulations, the finding of the tubercle bacilli and by inoculations of the guinea pig with the secretions, confirm the existence of the disease.

The treatment of this form consists in complete removal, followed by plastic work. The thermocautery and the application of zinc chloride, followed by a bi-chloride dressing, is an approved method of treating advanced cases. The X-ray is recommended in the superficial and spreading variety.

The vagina and the cervix are next in order of frequency. Most of these cases are secondary in origin, descending from the upper parts of the genital organs. Murphy cites but one case of primary tuberculosis of the vagina. The infection may originate through contiguity from the vulva, rectum, bladder and uterus or from discharges from the tubes, or from the blood current or immediate inoculation, as in diseased semen. It is very rare that we find the cervix involved when we have tuberculosis of fundus of the uterus. The ulcerative type is the most common form found in the vagina and cervix; then next in the miliary type. The symptoms are not characteristic in any way. Leucorrhea is present, the discharges being occasionally tinged with blood. There is nothing pathognomonic about the ulcerations. Eversions, erosions, inflammatory and syphilitic ulcerations, as well as carcinoma, have to be eliminated. *The treatment* consists in dealing radically with

the advanced cases, whereas in the milder cases, the curette, followed by the thermocautery or zinc paste, will suffice. The treatment in cases of cervical tuberculosis is hysterectomy.

The *fundus of the uterus* is the next in order of frequency. As the routine examination of all uterine scrapings has been inaugurated in the well-organized clinics, the frequency of this form of tuberculosis has increased. Two years ago, while attending the Johns Hopkins clinic on gynecology, my interest in this subject was decidedly increased, for while there I saw several cases in which tuberculosis of the endometrium or fundus of the uterus was discovered in cases in which, clinically, they had no idea of its existence. It impressed me very much with the importance of making examinations of all uterine scrapings.

The fundus is found to be attacked by the tubercle bacilli most frequently at the *extremes* of age. The *persistent* and *stubborn forms of leucorrhea before puberty and after the menopause are very suggestive of uterine tuberculosis*. Briefly, the symptoms may be said to be those of simple endometritis. The secretions should be examined for tubercle bacilli and if negative an examination of the scraping microscopically, as well as injection of the secretion into the guinea pigs should be made. The source of infection in the fundus of the uterus is secondary, in the majority of cases, to tuberculosis of the tubes. The treatment of this tuberculosis of the fundus is radical operation by the abdominal route.

The last and most important type is that of the tubes, these structures seeming to have a selective affinity for the tubercle bacilli. In six hundred and twenty cases of salpingitis reported by Martin (cited by Murphy), 17 were tubercular; 103 by Von Rosthorn, 5 were tubercular. In 140 hysterectomies by Kundrat, 4 cases of tube tuberculosis were reported. In our gynecological service tuberculosis of the tubes has not been found in the same degree of frequency as in the above statistics, but this, I believe, is due mainly to the fact that we have depended chiefly upon the microscopical and clinical side, rather than having adnexal extirpations examined microscopically as a routine procedure.

We find that the primary infection is more frequently present in the tube than in any other parts of the female genitals, though the secondary source of infection is greater than the primary. The symptoms of this type of tuberculosis are practically those of sal-

pingitis, with frequent pelvic peritonitis. Some authors attempt to argue that the disease has a characteristic temperature chart, and that by physical examinations certain nodular masses can be felt, etc., but this is not substantiated clinically, and after all the diagnosis has to be made at operation or autopsy.

In a paper of this character it will not be possible to go into the details of the microscopical and macroscopical pathology of the tubes. In a goodly percentage of tuberculosis of the tubes, we find a peculiar characteristic which is always suggestive of tuberculosis of the tubes, that of the fimbriated extremity being rolled outwards. Of course, the finding of tubercles is practically positive. A point frequently neglected in reaching the diagnosis at operation is in not investigating the interior of the tube, which in many cases is found to contain caseous material and typical lupus of the mucous membrane.

The treatment consists in extirpation of the tubes, and if the disease is advanced, total extirpation of the uterus and ovaries as well.

Tuberculosis of the tubes has especially attracted the surgeon in recent years, owing to its significant relation to tubercular peritonitis. It is due to Murphy and Mayo that our attention has been called to the important bearing that the Fallopian tubes bear to tubercular peritonitis. Mayo, in a masterly paper, written a few years ago, reported the results of his experience in this disease.

* * * In the 6,400 abdominal operations performed by them, 5,687 were intraperitoneal and 184, or about 3%, were for some variety of tuberculosis. Intestinal tuberculosis occurred 21 times; tuberculosis of the appendix was found 29 times in 1,888 abdominal operations. The Fallopian tubes were found involved with tuberculosis 44 times without tubercular peritonitis. Of 26 radical tubal operations, in which were associated tubercular peritonitis, 25 recovered, and of these 7 had been previously operated upon by simple laparotomy from one to four times. From the brilliant results obtained by the Mayos in treating the ascitic form of tubercular peritonitis by removal of the tubes, one is convinced that the cause of many of the former recurrences in the operative treatment of tubercular peritonitis, have been due to the fact that the tubes were previously left in situ, they remaining to act as a constant source of infection.

Mayo finds that tubercular peritonitis occurs four times more frequently in the female than the male. Osler finds two to one.

As far as can be determined, the tube is the explanation for the relative frequency of tubercular peritonitis in the female.

Tuberculosis of the Testicle--Diagnosis and Indications for Operation.*

By DR. S. P. DELAUP, New Orleans.

Tuberculosis is one of the commonest and most important of the surgical affections of the testicle, and its recognition and treatment present, perhaps, the greatest difficulty of all.

From my own experience in the male genito-urinary clinic at the Charity Hospital, it seems to me that the epididymis is by far the commonest site for tuberculosis in the male genito-urinary tract, and that the prostate is infected almost as often as the kidney in men. Clinical statistics on this subject are especially apt to err on the side of limiting the disease too narrowly, inactive or slight processes in one organ being overlooked in the presence of more active lesions in other organs. Autopsy records make tuberculous epididymitis rare, while every clinician knows it to be common.

Granting that tuberculosis is of frequent occurrence in the male genital tract, and that it may be primary there, its importance in this connection is on account of its tendency to spread to the urinary tract. A primary focus in the epididymis tends to extend along the vas to the testicle and prostate eventually involving the bladder, and is usually of hematogenous origin.

Direct infection from other organs may occur, notably from the urinary tract, though infection from the latter source may also occur through the blood and possibly the lymphatic vessels.

The diagnosis of a tuberculous lesion in the genital tract consists of two steps: First, the recognition of the lesion. Second, the determination of its tuberculous character by the recognition of the tubercle bacillus, as an etiological factor.

In the majority of instances, says Fuller, tuberculous disease of the testicle begins in the epididymis and is accompanied by few subjective symptoms until such time as aided by some secondary

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agency, the infection becomes active and the symptoms then correspondingly severe. Traumatism and infection, singly or combined, are the secondary agencies which serve to cause activity in a tuberculous process.

According to Davis the first symptom is usually a feeling of weight and discomfort in the testicle, some tenderness of the part affected, seldom developing into pain until the disease has lasted quite a considerable time. The pain then felt is dull, aching; may extend up the cord to the groin or even be felt in the back. These sensations are usually intermittent, disappear on rest to return on exercise. The first sign of the disease is the appearance of a hard nodule at the lower part of the epididymis usually of slow but progressive growth. This nodular induration later involves the entire epididymis, then the vas for a varying distance, and, lastly, the testicle itself. A urethral discharge usually exists, varying in quantity and character, usually small in amount, thin and milky, but may be profuse, purulent, or bloody. This discharge promptly disappears after removal of the tuberculous nodule. The vesical symptoms are usually late in appearing and are not urgent.

If the local lesion is not removed early the disease involves the entire epididymis, the nodules soften, break down, fluctuate, and the purulent contents may burrow into the tissues of the scrotum, or more often open spontaneously by one or more sinuses, which may discharge for months.

The time of life at which the testicle is most likely to be attacked is during its period of activity, from the age of puberty until past the fiftieth year.

Tuberculosis in connection with the testicle calls for operative surgical attention more frequently than does a like infection elsewhere of the genito-urinary tract. Still, even here tuberculosis should be treated conservatively.

In general, if the disease is primarily in the genito-urinary system, constitutional measures may be employed, an outdoor life and favorable climate being indicated, every effort being made to better the patient's condition. If no improvement results and the tuberculous processes continue to extend, recourse should be made to surgery in an attempt to eradicate the disease. In the case of patients who are unable to lead an outdoor life and have suitable climatic surroundings the nodules should be removed at once.

Tuberculosis, whether apparently localized in the testicle or elsewhere in the body, is always a disseminated infection which cannot be amputated.

My choice of operation is, therefore, always epididymectomy, unless the testicle is too far gone to be saved. Judging from the results obtained by Murphy and others, the results from epididymectomy are more favorable than the best results obtained from castration. Castration is the operation best adapted to the advanced cases.

If a patient appears with acute tuberculous epididymo-orchitis, treat him expectantly until the lesion suppurates or becomes subacute. If it suppurates, drain, or, in exceptional instances, remove the whole testis. When it settles down into chronic epididymis, or if it begins as such, examine the spermatic fluid; and, if this, on several successive examinations shows no spermatozoa, excise both the tuberculous epididymis and its infected fellow. For this will do no harm, and will prevent relapse upon the opposite side.

Slight tuberculosis of the testis may be depended upon to heal spontaneously after removal of the epididymis. Hence epididymectomy is the radical operation of choice, unless there is hyperacute generalized epididymo-orchitis, or unless the testis is destroyed by suppuration. This operation has a beneficial effect upon the general health and upon the tuberculosis of internal genitals. It should, therefore, be performed early in the disease.

In considering chiefly the methods employed at the present time for the relief of these cases, a few words might be said in regard to preventive treatment. In patients with a predisposition to tuberculous disease, who suffer from gonorrhea and its sequelæ, care should be taken to bring about as complete a cure as possible. Under preventive treatment might be mentioned the importance of recognizing early tuberculous lesions of the epididymis and testicles. The prompt removal of a tuberculous testicle before the disease has extended to the prostate and vesicles may be the means of saving a patient from a life of suffering.

Tuberculosis of the Gastro-Intestinal Tract.*

By DR. RUDOLPH MATAS, New Orleans.

In the short time allotted to me for the discussion of this vast subject, I can only deal with the most striking, salient and significant facts and generalizations. In order to fully appreciate the contrast between the past and the present concept of gastro-intestinal tuberculosis, the history, the etiology, the pathology and treatment of gastro-intestinal tuberculosis as presented in the great monographic treatises which have appeared recently, of which perhaps the most important are Brunner's work on Tuberculosis of the gastro-intestinal tract in the *Deutsche Chirurgie* (L. 46, 1907); Gailliard's article in Gilbert and Thoinot's *Nouveau traite de Medecine et de Therapeutique*, 1907, and other recent extensive articles, which comprehensively review the subject, must be consulted by all those who are especially interested in this important regional localization of the tubercular process. These great changes in the point of view may be briefly epitomized as follows:

1. Gastro-intestinal Tuberculosis is not to be regarded as an absolutely rare, vague, generalized and nearly always secondary disease, dependent upon the infection of the intestinal mucosa from the ingestion of contaminated sputum of laryngeal and pulmonary origin; nor is it a disease limited in its clinical and pathological aspects to the phenomena of surface ulceration simulating a chronic ulcerative enteritis; but it is a relatively frequent *primary* disease, independent of pulmonary or laryngeal infection and characterized by well defined localized lesions which undergo a typical and systematic evolution into various and now well recognized clinical types. These lesions are the result of the direct inoculation of the mucosa, submucosa and serosa of the intestine with or without participation of the peritoneum or of the mesenteric lymphatics. The process, which begins as an ulceration surface, or as a tuberculoma, may terminate either in, 1, resolution and cicatrization; 2, cicatrization with hypertrophic changes simulating tumor formation in the region of the ulcerated patches; 3, perforation either into (a) the free-peritoneal cavity, causing fatal peritonitis; (b) agglutinative peritonitis followed by entero-enteric fistula or by (c) encysted purulent collections in the peritoneum, which either rupture externally or into the neighboring organs (bladder, bowel, pel-

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vis of kidney, uterus, etc.,) or, when opened surgically, are followed by fecal fistula.

4. Stricture formation, after partial or complete cicatrization. This stricture formation may be single or multiple, according to the number and extent of the ulcerations.

The modern concept differs from the old, in the conviction based upon clinical, operative and cadaveric experience that the tuberculous process in the intestines is more amenable to spontaneous cure than was formerly supposed; that the protective reactionary processes exhibited by the connective tissue in the submucosa and serosa are more effective and frequently exhibited than was previously taught; that the ulcerative process is more latent, insidious and symptomless in its active stages, and that the greatest evils which result from the intestinal localizations of the tubercle bacillus in the alimentary canal are due to protective, conservative and reactionary tissue changes.

The formation of palpable tumors in the chronic, hyperplastic type, or stenotic constrictions which obstruct the intestinal canal, is the result of the triumph of the host in his struggle against the invading organism, the clinical picture of the disease and its most typical manifestations usually becoming plainer after the primary cause has been conquered and the infection largely extinguished. With this change in the etiologic and pathologic concept of the disease, the therapeutic aspect has also changed. From a purely palliative, symptomatic and almost hopeless therapeutics a new surgical area has dawned. With the progress of abdominal surgery and the examination *intra-vitam* of specimens of resected intestines (usually mistaken for malignant neoplasms or intestinal tumors of unknown causation) the true nature of these lesions has been revealed. As a result of the identification of these tumor masses and strictures with a primary localized tubercular infection, a new impetus has been given to the surgical treatment of tuberculosis. In less than a quarter of a century we have witnessed the evolution and application of a number of procedures including in this, enterectomy or resection of the bowel, entero-anastomosis with partial or complete exclusion of the infected bowel, artificial anus and plastic procedures which have gradually transformed the hopeless and forlorn prognosis of the past into an active, aggressive,

and successful invasion of a hitherto forbidden territory. Therefore, while gastro-intestinal tuberculosis still retains a diagnostic and therapeutic phase which largely concerns the internist, it may be said that at the present time the cure of this form of tuberculosis has passed to the surgical domain and now constitutes one of the most interesting and profitable acquisitions of abdominal surgery. In the near future it is possible, and even probable, that the interventions of the surgeon may be less frequently required as the progress of specific medication advances and the cure of tuberculosis on a general etiologic basis is attained. None will welcome this consummation more gladly than the operators themselves, who realize that when the lesions created by the bacillus have advanced to a stage requiring surgical action, only operations of a grave and major character can offer a prospect of cure or relief. It must be remembered, however, that the function of the internist who is to treat these cases will be more prophylactic than curative, and will always be limited to the earliest and least recognizable stages of the disease, because, as we learn by the histology of the lesions themselves, the worse evils and greatest dangers to the patient begin after the original infection has been circumscribed and partially, if not totally, extinguished by the defensive action of the normal connective tissue reactions. No specific serum, antitoxin or antibody can be expected to be effective in the advanced cases, for these will be powerless against the hyperplasias and cicatricial strictures that result from connective tissue overgrowth. Surgical therapeutics must therefore still remain a final resource, and the only hope of many, if not the majority of these patients, who will reach the final stage of the disease because of the inadequate means of recognizing its earlier phases. The co-operation of the internist is necessary in order that the clinical recognition of the operable lesions may be made early enough so that the patient may be transferred to the surgeon at the most opportune moment. Here, as in other fields which lie on the borderland between medicine and surgery, it is most important that the patient should not be kept waiting for surgical relief until the resources of the organism have been exhausted and reduced to such a low ebb that no human power can recall or resurrect them.

In connection with a discussion on gastro-intestinal tuberculosis the following statistical data in regard to the relative frequency and

location of the tubercular lesions in the various parts of the gastrointestinal tract, gathered chiefly from Brunner's monumental monograph published last year in the *Deutsche Chirurgie*, 46w Lib., are worthy of quotation.

GASTRIC TUBERCULOSIS. All authors insist upon the relatively great rarity of Gastric Tuberculosis. The most competent judgment in this connection is probably that of the pathological anatomist, and Thorel, who has recently contributed a case and designates the condition as a rarity upon the post mortem table. The following figures speak for themselves: In his dissertation on "Frequency and Occurrence of Intestinal Tuberculosis," Eisenhardt uses as statistical material the protocols of 1,000 autopsies of tuberculous cases performed in the Munich Pathological Institute, between 1886-90. These 1,000 cases included 556 secondary tuberculous infections of the bowels and only 1 positively tuberculous affection of the gastric mucosa. Kühl and Glaubitt utilize the material of Kiel Institute. They report 14 cases in the years from 1873-88, and the last named author calculates gastric tuberculosis as representing 2.1% of the tuberculous cases. These are general statements. But even here, a distinction must be made between the two forms of tuberculosis in the stomach; tuberculous ulcers and miliary tubercles of the gastric wall. The latter, according to recent reports, are much more common than the former. Simmonds, prosector in the Hamburg General Hospital, noted only 8 instances of secondary chronic tubercular gastric ulcer in nearly 2,000 autopsies, whereas miliary tuberculosis of the stomach was demonstrated with greater relative frequency, thus confirming the previous observation of Kaufmann, Wilms, and others. During 15 years of practice in the Paris hospitals, Ricard and Chevrier observed 4 cases of tuberculous stenosis of the pylorus. It is greatly to be regretted that the immense material which has gone to autopsy at our Charity Hospital cannot be utilized to furnish evidence on this, as well as other interesting points of inquiry in connection with the distribution and localization of tuberculosis.

In regard to the distribution of the disease as to age and sex, Glaubitt makes the following statement, based on a large statistical material: It is found that the female tuberculous patients suffer most frequently from gastric tuberculosis than males, and that tuberculosis of the stomach is slightly more frequent in tuberculous

children than adults. Gerhardt finds tuberculous ulcers of the stomach more common in children than in adults. According to this author, there were only two cases of gastric ulcer in 418 autopsies of tuberculous children. Arloing, basing himself on very large statistics, arrives at the conclusion that tuberculosis of the stomach is practically the same in children as in the adult, and that of the latter, men are more frequently affected than women.

INTESTINAL TUBERCULOSIS: Tuberculous ulcers of the bowel, like typhoid ulcers, are usually situated at the terminal segment of the ileum, as was taught by Rokitsky in his day, and confirmed by all later observers. Next to the ileum, ranks the ileo-cecal valve, the cecum with the vermiform appendix, and the ascending colon. The higher segments of the small bowel, and the lower segment of the large intestine, are not so often the seat of the lesion. Eisenhardt notes 33 cases of tuberculosis of the small intestine and 135 cases of the large bowel. Fenwick and Dodwell found the ileo-cecal region involved in 85% of the cases, this region being the exclusive seat of the lesion in 9.6% of the cases. The reasons for this selection is the stagnation of the infected feces in the cecal pouch. In the stomach as well as in the duodenum, the bacilli are subjected to the bactericidal influence of the gastric juice, especially the hydrochloric acid, which may be assumed to have a positive action upon the bacilli, if not upon the spores, although, never to such a degree that all the bacilli succumb to its effects.

This influence ceases in the lower segment of the small intestine. As regards the influence of stasis, the chyle is rapidly propelled through the jejunum and upper ileum, where the peristalsis is active, a prolonged contact with the bacilli containing feces with the intestinal wall not occurring until the end of the ileum is reached, when it enters the cecum at a right angle and is retained for some time in the cesspool formed by the sac-like reservoir of this gut. Precisely at these points, especially in the vermiform process, the follicles are most densely disseminated, and for this reason all mechanical and chemical stimuli here encounter a more favorable point of attack than in other segments of the bowel, the mechanical factors entering into play, especially during the passage of the feces through the valve.

In regard to the chemical influence, it is claimed (Falk, Baumgarten, Fischer) that the pathogenic action of the tubercle bacilli is

attenuated by putrefaction. Hence, the bacterial filters, i. e., the lymph nodes, situated at the angle of the ileum and ascending colon, especially in children, are very frequently found to be enlarged and inflamed, not only in tuberculosis, but in all kinds of infections (Widerhofer and others). As picturesquely stated by a French author, the mesenteric lymphatic nodes are the mirrors which reflect the intestinal lesion.

The peculiarities of the circulation of the cecum are likewise interpreted as predisposing to inflammation. Wolff and Conrath refer in this connection to the anatomical and histological studies of Tuffier and Fry, according to whom, the vascular supply of the cecum is very abundant, while the arrangement of the finer vessels of the cecum, as in the large intestine in general, is such as to favor infection, since the numerous arterioles, passing in a parallel direction towards the surface of the mucosa are offset by a comparatively few isolated venous branches, which are inadequate for drainage.

As regards the frequency of isolated ileo-cecal tumors caused by chronic tuberculosis of this part of the gut, we find that Brunner compiled, up to 1907, 194 operated cases recorded in the literature. This refers to the hyperplastic type of tuberculosis of this particular region. As a result of cicatrization of tubercular ulcers, strictures are formed which are of especial surgical interest, as they most frequently call for operative intervention. It is the universal rule that the frequency of tubercular strictures increases with the distance from the stomach (Bernas).

Pyloric stenosis from this cause is very rarely recorded. Stricture of the duodenum was observed in one instance only—by Margarucci.

I reported a case of multiple stricture of the jejunum (3 strictures within 13 inches of this gut). There were apparently no other tubercular lesions of the intestine in this case, and the patient made a permanent recovery after resection of the diseased gut, followed by circular enterorrhaphy by Maunsell's method. (See *Phila. Med. Jnl.*, July 9, 1898.)

In the small bowel, stenosis occurs by far most frequently in the lower portion of the ileum. Felix states the relative proportion as follows:

1st one-third of the jejuno-ileum, 8.9%; 2d one-third of the jejuno-ileum, 17.8%; 3d one-third of the jejuno-ileum, 73.2%. Nikoljski found the distribution of strictures as follows: Small intestine, 67 cases; cecum, 30 cases; ascending colon, 11 cases; transverse colon, 4 cases; ileo-cecal coil, 36 cases; rectum, 1 case. Strictures may be either single or multiple. This author states the relative proportion of intestinal strictures according to their etiology as follows: In a group of 81 cases, there were 42% tubercular, 17.2% cancerous and 16 syphilitic. In 83 cases of tubercular stricture, reported by Hoffmeister, 13 cases were multiple, and in 60 cases single stricture. According to Brunner, in 62 cases of tubercular stenosis of the small intestine, 24 were single and 34 multiple strictures. The multiple strictures, according to Hoffmeister, owe their origin to cicatrization of the ordinary, flat annular ulcers, whereas, the single strictures are to be interpreted as the product of the hypertrophic type of intestinal tuberculosis. The number of strictures varies considerably. In the case reported by Hoffmeister, 10 annular strictures were distributed along $2\frac{1}{2}$ meters of small intestine, while two strictures were found in the region of the ileo-cecal valve, and in the cecum. Strehl reports 13 strictures in the small intestine, another at the ileo-cecal valve, and still another in the ascending colon; Jaboulay operated upon 1 patient who had 16 strictures; Roux operated upon one with 17 strictures of the small intestine, very close to each other. Great practical significance attaches to the distance of the strictures to each other, since this directly influences the surgical procedures intended for their relief, especially in determining the indications for resection and anastomosis. This distance is extremely variable, in different cases, and also in individual instances. Sometimes a long series of strictures are placed close together along a short length of tract; sometimes a wide, unequal space is left between them.

As regards perforation of the bowel, we find that Fenwick and Dodwell, whose conclusions are based upon 2,000 autopsies of consumptives, calculate the rate of frequency of perforation at 10% in the cases of intestinal tuberculosis. In 566 cases of secondary tuberculosis of the bowel reported by Eisenhardt, complete intestinal perforation occurred in 28 cases. O. Muller states that, of 57 cases of intestinal tuberculosis in children, 3 terminated by perfora-

tion and peritonitis. According to Fenwick and Dodwell, the ileum is the most frequent seat of perforation; next in order are the cecum and appendix, but the ascending colon and duodenum also participate. In view of the extreme frequency of tubercular ulcers, the comparative rarity of perforation with extravasation into the free abdominal cavity, plainly shows that nature provides ample protective measures against the occurrence of this fatal event. As a rule, adhesive peritonitis with protective plastic exudation precedes the threatened perforation at the weak point leading to the agglutination of the intestines with each other, or with other organs, so that when perforation takes place it occurs in a closed space, isolated from the general peritoneal cavity, walled in by the intestines or omentum, forming what is described by the French authors as a pseudo peritoneal cyst or abscess; or a communication is formed with an adjacent coil of intestine (bi-mucous fistula) or with another hollow organ (entero-vesical fistula, etc.) In the majority of cases a fecal abscess is formed which is well walled in by peritoneal adhesions, and which ultimately ruptures externally, leaving a fecal fistula, etc. Brunner has collected 52 cases of tubercular appendicitis, operated upon, of which two died shortly after the operation; one from perforation of a tubercular ulcer, and the other from collapse. The direct operative mortality, however, is relatively small in non-perforative cases, amounting to less than 4%. The percentage of permanent cures, however, or end-results in this specific type of appendicitis, cannot be well calculated as in the majority of cases, the disease in the appendix was only a partial manifestation of a much more extensive disease.

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The most interesting aspect of this discussion from the practical point of view is the study of the results of the operative treatment of the various tubercular lesions above described. This chapter of surgical therapeutics is of comparatively recent origin, and yet the statistics which have accumulated in the last twenty years are quite sufficient to offer the greatest encouragement and prove that even in these desperate and formerly hopeless class of cases, a certain percentage are susceptible of permanent relief and cure.

Thus, quoting from Brunner, we find that in 125 cases of tuberculosis of the cecum treated by total extirpation or resection of the ileo-cecal coil, the mortality was 25%. In 36 cases of lateral anas-

tamosis for the same cause, without extirpation, the mortality was 8.3%. In 23 cases of total exclusion of this part of the gut, the immediate mortality was 8%. In 52 appendectomies for tuberculosis of the appendix, the operative mortality was 4%. According to the statistics of Campiche (1900-1905) and Brunner (1907) the mortality has diminished progressively as the technic has improved the patients have been brought to operation at an earlier stage than in former years. The immediate results as regards the operation for ileo-cecal tuberculosis are most favorable to resection with lateral anastomosis of the ileum and colon. Next comes termino-lateral and, last of all, end to end anastomosis. In intestinal tuberculosis, outside of the ileo-cecal coil, stricture and fistulæ have furnished the chief indications for surgical interventions. In reviewing the operative procedures, the chief methods resorted to have been exclusion of the diseased focus and short circuiting the bowel by various methods of anastomosis; by resection or excision, followed by lateral or end to end suture. In addition, a method of enteroplasty, analogous to Heinecke's pyloroplasty, has been adopted in a few cases.

In 34 cases of resection for obstruction of the bowel caused by tubercular stricture, there were 9 deaths following the operation, chiefly from peritonitis. The end results, as to permanent cure, are satisfactory in a certain percentage of the cases, but, in a large number, the subsequent history was not obtainable. The immediate operative results must be regarded as remarkably satisfactory when we consider the large sections of the intestine that some of the operators were compelled to remove when multiple strictures existed.

Thus, Lennander removed 41 cms., with 3 strictures; Trendelenburg 42 cms., with 5 strictures; E. Frank 77 cms., with 3 strictures; Troje resected one meter, and Köberle 2 meters of the small gut. In my case, 33 cms. of the jejunum was removed with 3 strictures. In several cases, double resections have been performed for the removal of multiple strictures situated at a distance from each other. One operator, Krogius, actually resected and reunited three different sections of tuberculous bowel, one including the ileo-cecal coil. It would be interesting to follow the records of surgical achievement in this interesting field of abdominal surgery, but the limited time at my disposal compels me to close this very syn-

optical presentation of the subject with a concluding statement of my own personal experience in the surgical treatment of the various manifestations of intestinal tuberculosis. This summary is based upon a hurried examination of my hospital and private case books and notes of cases which I have kept from 1885 to the present time. Some of these cases have already been reported in various publications, but the majority have never been put in print. Even as a mere list of titles, this statement is of interest as showing the variety of manifestations which may come within the observation of one individual observer, who enjoys fairly large clinical opportunities.

SMALL INTESTINE: 1, Triple stricture of the jejunum; resection of affected coil; enterorrhaphy by Maunsell's method; complete recovery. 2, Single stricture of the lower ileum, presumably tubercular, causing intestinal obstruction; resection, end to end anastomosis with Murphy button; recovery. 3, Perforating ulcer of the ileum; double ileo-ileostomy and artificial anus. Death from pre-existing sepsis. 4, Tubercular perforation of the ileum, with circumscribed, purulent peritonitis; death from exhaustion. 5, Tubercular ulceration at ileo-cecal coil, of long standing with marasmus, simulating dysentery. Ileo-colostomy with Murphy button. Perforation of bowel from sloughing at seat of anastomosis, death from peritonitis. 6, Intraperitoneal, encysted fecal abscess from ulceration of ileal coil; chronic sepsis; incision, drainage, fecal fistula; death from exhaustion four weeks after the operation.

LARGE INTESTINE. Cecum and Colon. 7, Cecal tuberculosis, large tumor of the hyperplastic type; exhausted subject; resection of ileo-cecal coil with termino-lateral ileo-colostomy; death from shock and exhaustion. 8, Cecal tuberculosis; cecal hyperplastic tumor; resection of cecum; lateral ileo-colostomy by suture with permanent recovery. 9, Cecal tuberculosis, with secondary abscess and multiple fistulæ of the abdominal wall; excision of fistulous tracts. Partial resection of the cecum, with permanent recovery. 10, Cecal tuberculosis in a case of pelvic colon, with perforation into the bladder; ileosigmoidostomy; death from urinary sepsis in three weeks. 11, Tuberculosis of the hepatic flexure of the colon forming large hyperplastic tumor, mistaken for carcinoma; laparotomy, exteriorization of the tumor on the Miculicz's plan; artificial anus; secondary thrombosis of the mesentery with gangrene of the bowel; death on

14th day. 12, Diffuse tuberculosis of the transverse and ascending colon, with obstructive stricture of the descending colon; resection of the strictured area, with obliteration of divided ends; artificial anus at cacum. Death in four days from fulminating hemorrhage, caused by erosion of vessel in the transverse colon in the ulcerated area. 13, Intraperitoneal, encysted abscess, due to tuberculosis of transverse colon (clinical diagnosis of tuberculosis) pointing in the upper umbilical zone; incision, drainage, death two months after operation. 14, Intraperitoneal, encysted abscess, in left hypochondriac region attributed to tubercular ulceration of the descending colon; drainage; recovery. 15, Intraperitoneal, encysted abscess, attributed to tubercular ulceration in the ascending colon; incision, drainage; secondary fecal and verminous fistula; several large ascarides escaping through the fistula. Recovery after 6 weeks of packing and local treatment. 16, Intraperitoneal, pericecal abscess with hyperplastic tuberculosis of cecum; spontaneous rupture in right groin, followed by fecal fistula. Partial resection of cecum with unsuccessful attempt at suture; re-establishment of fecal fistula; death from exhaustion and septic marasmus.

SIGMOID COLON: 17, Tubercular stricture of the sigmoid; resection of sigmoid; hyperplastic type of tuberculosis; artificial anus in left groin, permanent recovery. 18, Tubercular appendicitis, with threatened perforation and general tubercular adenopathy of mesenteric lymph nodes, also tuberculosis of cecum; appendectomy, operative recovery, X-ray treatment (post operative) apparent improvement, patient complaining, but still alive 13 months after the operation.

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Address of Hon. Robert A. Hunter, Annual Orator.

MR. PRESIDENT, LADIES AND GENTLEMEN, AND MEMBERS OF THE STATE MEDICAL SOCIETY: To tell you what a layman thinks of your profession is my pleasant duty to-night. In what I have

to say on this subject, I am reminded of one of the poems of Robert Burns, his "Epistle to a Young Friend," which starts in this wise:

"I lang hae thought my youthfu friend,
A something to have sent you,
Though it should serve no ither end
Than just a kind memento;
But how the subject-theme may gang,
Let time and chance determine;
Perhaps it may turn out a sang,
Perhaps, turn out a sermon."

I am sure no one will construe my remarks as a song. My musical talent is confined solely to singing lullabies to my babies. Not being a preacher, it cannot turn out a sermon. I will not let "time and chance" determine its nature, but shall tell you at the outset that it will be just a kind memento.

No preacher of a new doctrine, or missionary of religion, ever stood in greater need of courage and strength than I, bidden tonight to plant the standard of a layman in the temple of Æsculapius, and to discuss problems of medical science before the disciples of Hippocrates, the anointed apostles of health. Doctors may disagree among themselves as to the cause, diagnosis and treatment of diseases, but I am sure every physician here will corroborate my testimony when I say that laymen know nothing about medicine. I think I ought to make an amendment to my last statement, however. There is one class of medicines laymen know more about than doctors. I refer to patent medicines, but, alas, the familiarity of the public with this kind is frequently the wing on which they fly to heaven. Professor Maury, in his *Physical Geography of the Sea*, says, "There is a river in the ocean; in the severest drouths it never fails, and in the mightiest floods it never overflows. Its banks and its bottom are of cold water, while its current is of warm; the Gulf of Mexico is its fountain, and its mouth is in the Arctic seas. It is the Gulf Stream. There is not in the world any other such majestic flow of waters. Its current is more rapid than the Mississippi or the Amazon, and its volume more than a thousand times greater. Its waters, as far out from the Gulf as the Carolina coasts, are of an indigo blue. They are so distinctly marked that their line of junction with the common sea water may be traced by the eye. Often one-half of a ves-

sel may be perceived floating in Gulf Stream water, while the other half is in the common water of the sea,—so sharp is the line, and such the want of affinity between those waters, and such, too, the reluctance, so to speak, on the part of those of the Gulf Stream to mingle with the littoral waters of the sea.” There is a river in the ocean of life which is, in some respects, the human counterpart of nature’s great Gulf Stream. It runs with ceaseless flow through the sea of humanity, never failing, and neither time nor tide can make it leave its channel, or change its beneficent course. Its fountain is in the dawn of creation’s history, and its mouth is somewhere in the shadows of eternity’s shoreless sea.

It is the great, healing, life-saving, health-giving stream of the medical profession. It, too, throughout the long ages of the past, has not mingled with the surrounding waves, and the line which divides its billows from the other waters of humanity is also visible to the eye. The Gulf Stream is the healer of nature. It tempers the heat of the torrid zone, and carries life and warmth to the Arctic seas. It carries warm water to the North, brings back cold water to the South, and softens the severities of every clime. The physician is the healer of mankind. His origin, like that of the Gulf Stream, is divine, and his work among men is as beneficent as the ocean’s majestic river. I have stated that there is a line of demarkation between the physician and the laity, but it is not the fault of the medical profession. Your profession has always welcomed the co-operation of the laity. We have not responded in the past, but we are ready to respond to-day. The trouble, in my opinion, lies in the fact that hitherto laymen have not thoroughly understood your mission. Medicine was looked upon as an occult science, beyond the ken of the uninitiated, but the veil has been lifted, and the world now beholds a body of men whose whole lives are dedicated to the noblest aims of human ambition, the cure of diseases, and the preservation of health. Nature has so ordained things that the current of the Gulf Stream will never mingle with the waters of the sea, but I believe the time is not far distant when the laity will join forces with the physicians in the warfare against disease, making a great and irresistible Gulf Stream of health, and in the union and flow of that majestic river mankind will receive a new baptism and many of the ills which now afflict us will be washed away.

One of the most hopeful signs of the times is the interest taken by the public at large in preventive and sanitary measures. The physician is, and must always be, the leader in this great battle for life and health, but the laymen are the men behind the guns. No battle was ever won by a general alone, unless there was only one man on the other side. In this campaign there are no men at all upon the other side, but there are countless millions of germs to be overcome. The greatest enemies of the human race are microbes. It is estimated that three-fifths of all deaths are caused by germ diseases. The number of germs is infinite. I learned the other day that as many as eight billion deadly microbes were found upon the end of a doctor's lancet. If such a large number of germs can accumulate upon so clean an article as a lancet, it would be hard to estimate how many there are on the blade of the average pocket knife. There are myriads of mosquitoes to be exterminated, many Augean stables to be swept and garnished, thousands of people to be robed with the sanctifying cloak of vaccination, and hundreds to be taught the necessity for worshipping at the shrine of the immaculate goddess of cleanliness. To accomplish these things, the physician needs the hearty, sympathetic and active co-operation of the public.

I do not pretend to be well versed in medical lore. I know as little about this great science as one who skirts the sea shore in a canoe does of the boundless ocean, but I do know the physician, and I put in evidence here the fact that among all the benefactors of mankind, he stands second to none. The statesman may frame a constitution and write laws upon the statute books for the preservation of liberty; the patriot may lay down his life upon the battlefield for his country's rights, its honor, or its flag; the inventor may steal the lightning from the clouds, and flash messages from continent to continent, over sea and land, on the invisible wires and waves of the wind, but higher and grander than all these achievements is the work and mission of the physician,—the guardian of health, the preserver of human life. Health is the supreme blessing. A sick man is a slave, a well man a king. The joys of freedom, the glory of war, the achievements of inventive science, are of no benefit to him in whose veins the fire of fever is raging, whose body is stretched upon a bed of pain, who beholds around him the tear-stained faces of his loved ones, and sees be-

fore him, whether far or near, the awful countenance of death, the king of terrors. The statesman, the warrior, the inventor, can bring him no aid; but there is one whose very presence at the bedside gives comfort, assurance, consolation; one whose magic art can quench the flames of the burning fever, soothe the aching brow, still the throbbing pain, rescue the sufferer from the yawning grave, and nurse him back to life and health. That man, hero, benefactor, life-saver, is the physician. A sound body is better than the largest banking account in the world. The roses of health are fairer to my eyes than all the dollars of wealth. The moneyless man, endowed with health, is richer than the sickly millionaire. Disease will cast a shadow on the sunniest home. The doctor does not give health, but he restores and preserves it. He is the sentinel upon the watchtower of public health, the first to strike a blow in its defense, the first to offer up his life as a martyr to science, and the last to claim any praise. I have seen the physician snatch a little child from the very jaws of death and restore it to health and to the loving arms of its parents; and it seems to me that this is not only one of the greatest triumphs of his skill, but also as noble an achievement as can be found in all the annals of glorious deeds. The baby neither knows nor can tell, what enemy has invaded its little form. Its tiny lips convey no message to the listening ear. To look at a sick child and ascertain the nature of its disease, seems to me as difficult as an attempt to pierce the veil of the future, and yet the physician can do it, in the majority of cases, with unerring certainty. I have seen the physician go down into the valley of the shadow of death and bring back to health a little girl who was dearer to her father than all the wealth of the ages, and as precious to her mother as the life's blood of that mother's heart; and I say that this conquest of death which is repeated day after day, month after month, and year after year, in thousands, nay millions of homes, is a grander epic than Homer ever sung, a more sublime victory than was ever achieved by warriors on all the battlefields of the centuries.

The skill of the modern physician carries the mind back to the days of miracles. He goes about doing good, supplying the deficiencies of nature, strengthening the weak, giving tongues to the dumb, ears to the deaf, eyes to the blind. He, it is, and he only, next to God, who can

“Minister to a mind diseased,
Pluck from the memory a rooted sorrow,
And raze out the written troubles of the brain.”

Go into the hospitals and witness the sublime miracles of modern surgery, and you will see wonders performed the like of which has not been seen since the divine Physician walked the earth. Under the deft fingers and sharp knife of a master surgeon you will behold the palpitating heart laid bare, and you can count its pulsations as it beats within the walls of the chest before your eyes. Look a little closer, and you will see the surgeon's cunning blade explore the inmost recesses of the body. The scene shifts, and the knife enters the region of the mind, that kingdom of the intellect into which no Moses of the ancients ever looked until life was extinct.

The Bible tells us that a woman took a leaven, and hid it in three bushels of meal until the whole was leavened. Twenty-five centuries ago the leaven of medical science began its glorious work when Hippocrates came upon the stage of life. He was born in Greece in the year 460 , B. C. It is, no doubt, true that he derived his knowledge not only from his own observations, but also from systems and writings that preceded him. Joseph, who lived 1240 years before Hippocrates, commanded his physician to embalm the body of Jacob. The process of embalming was known to the Egyptians before the beginning of history, and it must have involved the highest knowledge of anatomy. The virtues of sanitation were well known to the Jews. The Book of Leviticus is a splendid treatise on sanitation and hygiene. The measures suggested by Moses for the prevention of leprosy could not be improved to-day. Botany is a science intimately connected with medicine, and every student of the Bible knows that Solomon was a great botanist. Homer tells us that Helen of Troy put into wine a drug “that frees man from grief and anger, and causes oblivion of all ills.” It is impossible at this late day to say whether Homer had anesthesia in mind, or was simply indulging in a poetic dream. It is not denied that some knowledge of medicine existed before Hippocrates, but he is justly called the “Father of Medicine,” because he laid the foundation deep and strong, and systematized the science. His is the greatest name in medical history. Hippocrates lived in the period of the highest intellectual

splendor of Greece, the golden age of Pericles. In that era the mind of man was active in the production of immortal things. Architecture, sculpture and painting were carried to the highest perfection. Undying oratory flowed from lips touched by fire divine, and poems were penned that will live as long as the human race. Hippocrates was worthy of his land and his times. He made medicine more than a science. With his high standards of learning, sagacity, humanity and probity, he raised it to a rank which it has never lost. Whatever the science of medicine may have been before his day, it is certain that since the time of Hippocrates, it has been a profession. His celebrated oath is one of the most memorable of human documents. It is the Magna Charta of the medical profession, and embodies the highest principles of ethics. He was conscientious in his practice, and the success of his art was more valuable to him than silver or gold. It is said that the Athenians revered him as much for his benevolence as for his genius. The noble characteristics of Hippocrates are found to-day in the medical profession. There is one thing about your profession, gentlemen, that I admire above all others, and that is the character of the men who compose it. I wish to bear testimony to the fact that the word doctor (and when I say doctor, I mean the physician, not the quack) means a man of character and a gentleman. I admire your science more than any other, but I revere your character more than your science, because character is the greatest thing in the world. If you were not men of character you could not accomplish the good you are doing. The value of your service entitles you to more remuneration than any other calling, but you do more work for less pay than any class of men in creation. It is a common saying that we must not expect something for nothing, but this does not apply to the medical profession, for the day never passes that the physician does not give something for nothing. The charity of the physician has made his name a synonym for benevolence. The messengers of the medical profession penetrate the tallest garret and the deepest cellar, and render to the lowly and the poverty-stricken the same high service they give to the rich and the great. When the poor cry to heaven for healing, the Lord sends them the manna of a physician's charity. In every stricken haunt of humanity you can find a doctor's footsteps, and there is no gold in the prints save the heavenly metal of his charity.

When the grim specter of pestilence enters a land, striking terror into the hearts of men, who fly from it like winter's withered leaves before the wind, the physician will be found not only upon the firing line, but in the very camp of the enemy. If I might be permitted to paraphrase the tribute paid to one of the ministry's noblest missionaries, I would say: "We are all brave when the war-drum throbs, and the trumpet calls us to do battle before the eyes of the world, when touching elbows with our fellows, and clad in all the glorious pomp and circumstance of war, we seek the bubble fame even at the cannon's mouth. When the music of the battery breeds murder in the blood, the electric order goes ringing down the line and is answered by the thrilling cheer, the veriest coward drives the spur deep into the foaming flank, and plunges like a thunderbolt in the open jaws of death, into the very mouth of hell. But when a man is wanted to go forth alone without blare of trumpet and roll of drum into the living presence of some dread disease, plague, or pestilence, and bare his bosom to its lightning strokes of death, the man who never retreats, or hides, or runs away, who is always equal to that supreme test of personal heroism, is the physician."

The germ of true medicine is found in the works of Hippocrates. He introduced a new era, founded a new school, rescued medicine from superstition and theory, and placed it upon the high plane of fact, observation and experience. His name is mingled with the history of science, his life is its heart, and from its pulsations there has gone forth the knowledge that has leavened the world. If you wish to see the monument of Sir Christopher Wren, go to London and look at Westminster Abbey. He was its architect, and it is his epitaph. If you are searching for a monument to Hippocrates, look around you and behold the medical profession. The work of the leaven of science did not cease with Hippocrates. It crossed the Mediterranean Sea to the land of the Pharaohs, permeated the Alexandrian school, and then returned to Europe where its powerful influence was felt in the Eternal City. It entered the fertile brain of Galen, and the yeast of health grew larger through his genius. After the death Galen, medicine stopped thinking, it is said, and slept for fifteen centuries. This, perhaps, explains a strange passage in *Gil Blas*, the great novel of Le Sage. It is related that the hero of the story, in the midst of his wan-

derings, came to a certain town where he was taken desperately ill. After a long struggle, the disease capitulated, and he got well. The hero attributed his recovery to the fact that there was no doctor in the town.

The leaven of science commenced its work again with the revival of letters, and since that time it has gone onward and upward through the mass of humanity, carrying its messages of hope to aching hearts, and its blessings of healing to every land and clime under the sun. In 1613 Dr. William Harvey announced his doctrine of the circulation of the blood. Whenever a man discovers anything new, he must combat the prejudices of mankind before he can make it useful. Like Columbus, and all the pioneers of knowledge, Harvey suffered. He lost part of his practice, and some of his contemporaries thought he was crazy. Coming down through the ages, we find the leaven of health still engaged in its noble mission, and there rises through the vista of years names of men who made the world infinitely better for having lived.

Edward Jenner, the discoverer of vaccination, and Sir Joseph Lister, the founder of the antiseptic system of surgery, are beacon lights of science; one conquered smallpox, and the other made surgery a boon to the human race by robbing it of the terrors of blood poisoning. The discovery of ether, chloroform and cocain, the great triumvirate of anesthetics, is one of the grandest blessings the human race ever received from the leaven of science. To portray the achievements of all the great heroes of medicine would require a kingdom for a stage, and a monarch's hand to paint the noble scenes. The world has not been grateful to these mighty benefactors. Their names are seldom seen outside of medical histories, but they should be household words. Mankind's monuments to warriors are found in every land. Some deserve these shafts and statues. Others do not, for to commemorate their achievements is simply to immortalize their slaughters. The world glorifies the man who has written his name across the page of history in the red blood of mankind, but consigns to oblivion the kindly, gentle and glorious benefactors of peace. I would not detract one jot or tittle from the fame of warriors like Washington, Stonewall Jackson and Robert E. Lee, who fought for principles, but I say it is the very incarnation of misplaced gratitude to deify an Alexander, a Cæsar, or a Napoleon, who left behind them no

real glory save the bleached bones of their murdered victims, while we bury in the tomb of forgetfulness the memory of an Hippocrates, a Jenner, or a Lister, names that should not wither though the earth forget its empires, names that look forth in the sun's face imperishably pure, the healers of the nations,—men who have redeemed the human race from suffering and sorrow, whose lives are like benedictions from heaven, and whose works shine next in brightness to the radiance that flows from the throne of God.

I have an unshakable confidence in the result of the warfare against disease. The past, at least, is secure, and its victories afford hope for the future. The curse of smallpox has largely succumbed to the blessing of vaccination. The knell of yellow fever was sounded when the bell of science rang out the cause. Medical science is progressive, and I believe the time will come when the Great White Plague, consumption, will no longer scourge mankind with its scorpion lashes of death. It still reaps its harvest of human lives, knocking with equal hand at the cottage and the palace gate, and slaughtering its countless victims as of yore. I believe it can, and will, be conquered, for the white light of science is penetrating its mysteries, thousands of eyes are watching it, thousands of brains are combating it, millions of hearts are begging God for victory over it, and it seems to me that the dawn is at hand, for nothing can resist the united work and the enlightened thought of all mankind. The other insidious diseases of germ origin must also go, for man will overcome them just as he has harnessed and controlled the wonderful forces of nature.

There are two things that militate against Louisiana abroad. One is the stigma of illiteracy, and the other is the idea that our State is the land of pestilence and disease. We want and invite immigration. We ask our brothers of the North, especially, to come to us with their capital and help us place this great commonwealth in its proper position among the sisterhood of the States. We offer them the best and most fertile lands on the globe. To the farmer, the State of Louisiana can show her broad fields of cotton, corn, cane, rice, and nearly all the products capable of growth in a temperate or subtropical clime. There are here no dreary stretches, no bleak, granite hills, no forbidding and worthless wastes, but a soil teeming with fertility. Tickle it with a hoe, caress it with a plow, and the choicest grains, fruits and flowers:

will burst in bloom and blossom from the ground. Louisiana is the easiest place on the face of the earth in which to make a living. Every inch of her soil is generously responsive to the touch of labor. The gardener will find here countless fruits and vegetables.

To the lumberman we offer the thousands of acres of pine, cypress, and hardwood timber on our hills and in our swamps and valleys. To the laborer, we extend the widest and most varied employment in our mills, factories and on our public works. Louisiana has the largest sulphur mine in the world, greater than the famed deposits of Sicily. In manufactures, we hold second rank in the South. We can offer something to all men, and we have been inviting them for years to come, help develop our resources and grow rich in a land which offers the greatest of opportunities for the investment of capital and the employment of labor. Why is it, then, that immigration especially of the desirable kind, is moving with so slow a pace towards Louisiana? It is because we as a people are considered illiterate, and our climate unhealthy. The charge of illiteracy, alas, may be true, but Louisiana is not an unhealthy State. There are no diseases in Louisiana to-day that are produced by her climate. Those that do prevail here are common to every land. It is the sacred and solemn duty of every citizen to use every effort in his power to remove the foundation of one of the charges against our State, and to bend all his energies towards disproving the others. The most important subjects the new Legislature can consider, in my opinion, are public health and public education. The appropriation for education should be increased, a sanitarium for the care of consumptives should be built, and a law passed providing for the accurate keeping of vital statistics in every parish in the State. Louisiana has a good character, but a bad reputation. There is a difference between character and reputation. Reputation is what people think of you. Character is what you actually are. Reputation is the advertisement of the goods, character is the goods themselves. We have the best character of any State in the Union, and I would like to see the Legislature put our reputation on the same high plane with our character. Louisiana must and shall march to the head of the class in literacy and down to the foot in illiteracy, and we must publish to the world and convince mankind that we are first in health as we will become first in education.

Orleans Parish Medical Society Proceedings.

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In Charge of the Publication Committee, DR. E. M. HUMMEL, Chairman.

DR. HOMER DUPUY and DR. S. K. SIMON.

MEETINGS OF MARCH 28 AND APRIL 25, 1908.

Symposium on Tuberculosis.

DISCUSSION ON DR. BEL'S PAPER (MAY JOURNAL).

DR. DUREL: The paper just read by Dr. Bel has brought up several questions of great importance to the medical profession and to the public. I would like to say something regarding the early symptoms of tuberculosis of the lungs. The profession does not seem to be alive to the importance of recognizing this condition in its early stages, especially as regards treatment. Dr. Bel mentions cough as one of the early symptoms. I have examined approximately 1,200 cases of phthisis, and my observations is that cough is not usual in its first clinical stage. So also with reference to the temperature. A purely tubercular infection is essentially an afebrile condition in its incipency. Careful observation of the temperature may reveal a rise of 99 degrees, or 99.5 degrees, but scarcely higher, and a subnormal morning temperature. The digestive function, on the other hand, is one of the first disturbed. Gastric disturbances and loss of appetite usually precede the breaking of the general health and loss of weight. This disturbance of the stomach seems to be a neurotic manifestation. Examination of the stomach contents reveals a state of hypochlorydria. Not infrequently the patient comes complaining of sick stomach only, and I have learned to suspect phthisis on this complaint alone. I think it is our duty to look for signs of tubercle in the lung when such symptoms persist.

It will be recalled that there are two varieties of the bacillus tuberculosis—namely, bovine and human. A so-called form of the organism is spoken of as “splitters,” which is a condition of the

bovine and human bacilli, wherein we observe irregular segmentation and division of the adult organism.

These "splitters" are found in the early stages of tubercular infection, and experience has taught me to regard their presence as an indication of good resisting powers of the subject. The bovine form of the bacillus should always be looked for.

I don't think Dr. Bel laid sufficient stress on resistance to the finger upon percussion as an important early sign. I regard this as an exceedingly important symptom, as I have repeatedly noticed its presence before dullness was apparent. Rough breathing is another important sign, or rather, rough, feeble breathing. This phenomenon is accounted for by local changes in the lung tissue, interrupting the free passage of air. There are no rales to be heard in the very early stages, as a rule. They, however, develop as the disease progresses, and are of assistance in diagnosis later. The blood count promises, when more work has been done in this line on suspected early and advanced tubercular subjects, to be of decided importance in establishing the diagnosis, prognosis and tuberculin treatment of these cases. I have been able to make careful blood counts up to date in thirty-three cases. According to these counts, there is a decided tendency for the white polynuclear leucocytes to rise proportionately, sometimes going as high as 85% to 90%. The relative percentage of the different nuclei of these polynuclear leucocytes seems to be of value. For instance, as Arneth, Klebs, and a few others have shown, the 2 and 3 nuclei cells seem to be of a higher percentage in the healthy subject; and in the tubercular the 1 and 2 nuclei cells predominate. I have made original researches regarding these findings, and up to now my observations are similar. This, if it will be found to be so, will be of great benefit for both diagnosis and prognosis and treatment of tuberculosis. I will very shortly give you a preliminary report of these researches in a paper before this Society.

In a paper, read seven years ago, I emphasized the importance of the tuberculin test in suspected phthisis. At the present time this test is used more than ever. I still consider it of great importance in assisting us to arrive at a positive diagnosis. When a case comes to us giving a history of having been exposed to contagion, with rough, feeble breathing, loss of weight, temperature 99 3-5 degrees, and suspicious, yet no positive local signs,

a positive reaction with the tuberculin test puts the case beyond doubt. Again, I would like to lay stress on the point that the temperature is not the only sign of a tuberculin reaction in these incipient stages. It is well to bear in mind that reaction to tuberculin is at first local, and it is well to watch for the signs of localized reaction about the original focus of infection before temperature arises. As the process gains headway, these local signs increase about the indicated spot until fine rales and other significant signs are to be noted.

In regard to the supposed danger of using the tuberculin test, I can only say that I have used it numbers and numbers of times with no bad results. On the contrary, I am of the opinion that tuberculin stimulates congestive reaction around the tuberculous focus, and increases the antibodies in blood, helping and strengthening the resisting forces of the tissues. It has been claimed by some who are of the opinion that harm can come of the use of tuberculin, and that it sometimes precipitates an attack of miliary tuberculosis. I do not believe that any instance of this has been proven, and am inclined to think that where miliary tuberculosis did follow the injection, it was by coincidence. As an example, I recall a case, which came to me some months ago, with the signs of incipient phthisis pulmonalis. I sent the case away without using tuberculin. Three weeks later the patient developed miliary tuberculosis and died. This case shows that had I used the test, the subsequent development of miliary tuberculosis would have in all probability been attributed to tuberculin unjustly. There is one thing that experience has taught me—that tuberculin in large doses is a deleterious poison, and that where we use it therapeutically, as well as for diagnostic purposes, we must graduate the dose according to the expected reaction in an individual case. Not long ago a case came to my notice wherein the temperature had risen to 104 degrees upon the administration of a dose of tuberculin. Investigation developed that the physician had used a test dose, instead of a therapeutic dose. This raises the question as to what is the proper test dose to be administered. I would say 5 milligrams is a high dose of a fresh preparation to be administered the first day. I start with 1 milligram, then 3-5, and if necessary 10 milligrams successively, at three days' intervals. As the preparation ages it loses potency, so that a larger dose of an older preparation

is permissible. Likewise, if the subject has had tuberculin previously, some immunity has been acquired, and a larger dose is required. I am no tuberculin fiend, but knowing by experience that good results are to be obtained by its use, I insist on its merits as a therapeutic agent. I would have no hesitancy in administering tuberculin to a healthy subject, as I have never seen any untoward results follow its use. As to its therapeutic uses, I have discharged from my care 137 cases of consumption, cured under this treatment, combined with sanitarium, hygienic and other therapeutic measures, as the cases indicated, and I have used this agent in most of cases, both for diagnostic and therapeutic purposes, with results that justify me in claiming that I have saved that many lives. Even had I been unfortunate to obtain some bad results (as some contend they have) with the tuberculin test, I would feel contented that I have been instrumental (by means of this tuberculin test) to diagnose my cases early, and thus make healthy and useful citizens of the 600 or more cases thus early diagnosed.

DR. THIBERGE: I am surprised that there have been no remarks as to the easy sign noted by Durand, of Paris. He claims that the administration of pot. iodid in suspected cases wakes up dormant tubercular foci. A patient whom I suspected to be tubercular, but in whom I had been unable to locate the foci in the lungs, consulted an oculist for her sight, who prescribed a large dose of potassium iodid. I saw the patient the night following administration of pot. iodid. The eyes were closed and nose was running freely; in fact, there was typical iodism. Examination of chest revealed three spots of tubercle, with fine rales, and evidence of congestion, especially at the base. The same areas were apparently normal after iodism cleared up. Durand claims that rales are more frequently first detected at one or both bases than at the apices. This iodid test is a reliable diagnostic sign, and in view of the ease with which it is applied, I think it ought to be tried.

DR. BEL (in closing): I have listened to the discussions with interest, and think I have been instructed by what I have heard. I admit that the temperature record is not to be depended upon in early phthisis. In regard to resistance to the finger upon percussion, I can detect this condition fairly well, but sometimes I fail to find it in cases where other signs point to the presence of tubercle on the lung. If Dr. Durel can find it constantly in early phthisis,

he has the best of me in this particular technic. Tubercular conditions of the lung are at best hard to detect by physical examination, without the presence of rales. I have had no experience with the differential blood count, and cannot speak as to its usefulness in diagnosis. Dr. Thiberge called attention to the use of K. I. as a diagnostic test. I am aware that tubercular patients are extremely sensitive to this salt, but I have not made use of it as a diagnostic test.

DISCUSSION OF DR. BUTTERWORTH'S PAPER.

DR. FENNER: The paper just read struck me as being especially well prepared, and I have listened to it with a great deal of interest. Dr. Butterworth has presented a mass of statistics, collected from many excellent sources, which bears out the several points advanced in his paper. I have not had occasion to refresh my mind recently with data and details of the prevalence of tuberculosis among children at respective ages. From observations of current literature on the subject, together with my personal experience, I would like to make several deductions here. In the first place, tuberculosis in very young children is very difficult to recognize. Nearly all cases of pulmonary tuberculosis are treated in their early stages as broncho-pneumonia, and tuberculosis is only suspected when the case hangs on persistently. I think it safe to say that tuberculosis in young children is, in most instances, discovered at autopsies in our large hospitals, where our statistics are for the most part gathered. The more modern method of testing with tuberculin is bound to prove of assistance in the detection of tubercular infection in early childhood. The ophthalmotuberculin test is particularly suitable for use in a young child. The general signs are particularly liable to lead one into error in the case of children. I recall a case, which lingered for weeks, with symptoms pointing to tubercular infection, including signs in the lungs. It was regarded as a probable case of tuberculosis. Subsequently, however, all these symptoms cleared up perfectly, and the child is now well and robust. I have come to regard these as prolonged grippal conditions.

In listening to Dr. Butterworth's paper, I was struck by the observations of others quoted by him regarding the primary points of infection. There is no question that the lymph-glands are most

often the first structures involved in the majority of instances, and for this reason the symptoms are often vague or slight. However, I do not think it can be contended that the lymphatic system is primarily involved in tuberculosis of the bones and joints, especially of the hip joint; at least, symptoms pertaining to the lymphatic system are not obtrusive.

To return to the tuberculin reaction, the evidence afforded by this test is definite, especially when taken together with general symptoms arousing suspicion of tubercle. I also am of the opinion with Dr. Durel that tuberculin, properly used, is harmless. I have seen it used in several cases, and although the disease was well advanced, there were no bad results.

DR. BEL: When we stop to consider the investigations of bacteriologists, showing that tubercle bacilli are to be found on the floors and walls up to a height of four feet, and the spectacle of little ones crawling about and putting their hands and everything else in their mouths, it is a great wonder that any of them survive.

DR. BRUNS: Reports are beginning to come in through the special literature, indicating that the ophthalmo-tuberculin test is not the innocent procedure it has heretofore been thought to be. Recent French journals have had reports of cases of previously healthy eyes having been permanently damaged by this agent. In view of this apparent danger, it would seem to be a wise precaution on the part of those using this test to first secure the patient's consent, or, in the case of children, that of their parents.

Casually, I may say, that, though in my twenty-fifth year in the practice of ophthalmology, I have yet to see, here in New Orleans, a tubercular condition of the iris, or any of the essential structures of the eye.

DR. DABNEY: Dr. Butterworth's statistics help us in the early diagnosis of tuberculosis. He says, further, that in all children three months of age, 2% contract tuberculosis; up to fifteen years 35% are infected, by which we may infer that by the time we are thirty, we all will have become tubercular, according to these figures. What is the matter with declaring everybody tubercular and putting them in a sanitarium for treatment? We must all have it. .

DR. J. F. OECHSNER: All these improved diagnostic methods promise assistance in enabling us to arrive at diagnosis of the infectious diseases quickly, and not the least benefit we hope to derive from such early recognition of diseases is that our efforts at prevention will be enhanced, not to mention the prospects of specific cure being found in this way. The statistics presented by Dr. Butterworth are quite instructive, and his paper is an able presentation of the subject. It appears that the older the child is the more liable it is to become infected, because the chances of its coming in contact with infection are greater. I was taught an impressive lesson several years ago as to the contagiousness of tuberculosis. A child, three years old and well previously, parents free from tuberculosis, but with a phthisical uncle, had for some time been thrown in contact with this man sufficiently to contract the disease. About five or six months after this uncle's death the child died of tuberculous meningitis, as confirmed by postmortem examination. It occurs to me that the majority, if not all, people might give the ophthalmic reaction, if the Germans are correct in their claim that practically all people at some time in their lives have or have had tuberculosis.

DR. BASS: I join Dr. Butterworth in praising the ophthalmotuberculin test. I have used it in over one hundred cases, with but one unfavorable result. This may possibly be enough to warn one of its dangers. The eyes in question were to me apparently normal. The patient had been admitted for neuritis and syphilis. He claimed to have had tuberculosis five years previous, but this was unknown to me at the time. There was a very violent reaction, which subsided, but again flared up. The eye is not well yet, and although it has not been injured in any permanent way, it is still giving trouble. In another case, ten days after reaction there remained a livid redness of the caruncle. All precautions in these cases were taken to use the proper strength and quantity of fluid. The eye in the latter case also seemed perfectly normal before instillation. I am glad to see that my observations are confirmed by such an eminent authority as Rosenau—that the reaction is one of immunity—a true anophylaxis. A patient having had tuberculosis ten years previous may still give a positive reaction. The ophthalmic method of applying the tuberculin test has advantages over other methods, because of the ease with which

it is applied. The results seem just as reliable, if properly interpreted. Upon application of the tuberculin test, especially by the subcutaneous or vaccination method, there is an appreciable lowering of both the opsonic index and the agglutination reaction of the blood serum. These changes can easily be demonstrated in the laboratory. It is probable that there is not, in this same lowering of resistance, damage done by the ophthalmo test. Specificity of the test seems to apply to other infections as well as to tuberculosis. I have used typhoid toxin in suspected typhoid fever in the same manner as the tuberculin is used, with positive results. Subsequent developments confirmed the nature of the cases. All other tests proved negative. The typhoid reaction is prompt and easy. It has been said to occur within three days of the disease. See what this test promises if it proves reliable. We will then be able to diagnose typhoid at a much earlier date than formerly. The same principle is involved in both the tuberculin and typhoid tests.

DR. BUTTERWORTH (in closing): I agree with Dr. Fenner, regarding the difficulty of diagnosing tuberculosis in young children. In view of these difficulties, the ophthalmo-tuberculin test is especially valuable as an aid. I have had no experience with the subcutaneous method, but am rather prejudiced against it. Dr. Thayer, of Baltimore, states that latent tubercular lesions have been started into activity by this method. The impression prevails that subcutaneous injections are sometimes followed by disastrous results. More recently the vaccination method has been introduced—a (1 to 25) tuberculin solution is applied to two respective scarified spots, and a third left uninoculated for a control. In from 24 to 72 hours a papule is observed in the inoculated spots, signifying a positive reaction. No bad results have been observed from the procedure.

Wolff-Eisner suggested the application of tuberculin to the eye. This method is to be preferred, because of its simplicity. I was interested in the remarks of Dr. Bruns relative to damage to the eye following tuberculin instillations. It seems to me we should be careful to use the weakest solutions first, as a precautionary measure. Regarding the obscure cases simulating broncho-pneumonia, it is in just such cases that we need the diagnostic aid furnished by tuberculin. Tuberculosis in children seems to involve the glands

primarily by selection. This is specially true with reference to the bronchial glands. Bone and joint involvement seems in the majority of instances to be secondary to glandular infection. A tubercular gland is always a menace. Measles and whooping cough, occurring in the presence of such glands, may prove especially dangerous to the child, as it reduces the resistance and increases the receptivity of the tissue for the tubercular organisms. The infected gland then figures as a nidus, from which the infection is carried to other regions.

DISCUSSION ON PAPERS BY DRs. DUPUY, MENAGE AND LOGAN.*

DR. HENRIQUES: In the diagnosis of Potts' disease and tuberculosis of bone generally, I wish to emphasize the value of the X-ray.

Admitting the value of tuberculin as a diagnostic agent, if the reaction is positive, yet if it is negative, while we may have excluded "tuberculosis" as a diagnosis, we *have not* diagnosed the disease present.

With the advances made in the last few years in the technique of taking skiagraphs and their correct interpretation, the X-ray has become a valuable agent in diagnosing the various diseases of bones and joints. By this means we cannot only make a differential diagnosis, but can determine the extent of disease as well.

In the treatment of tubercular lesions of the skin, we have in the X-ray a valuable adjunct to other modes of treatment.

DR. WEIL: I would like to supplement Dr. Dupuy's article with a few observations on the fatality of laryngeal tuberculosis in the presence of pregnancy—as probably time did not permit the doctor to remark on this phase of the subject. Only recently has this complication been looked into and efforts made to draw conclusions as to the reason for this. Upon reflection, it is not difficult to account for the almost constant fatality of tubercular laryngitis with pregnancy.

First—Impairment of nutrition incident to pregnancy, as the increased amount of nourishment required by the host is curtailed by the dysphagia present.

Second—The growing fetus fills the abdominal cavity and causes embarrassment of respiration already made difficult by the condition

* Dr. Dupuy's paper was published in the JOURNAL of May, 1908, page 903; papers by Drs. Logan and Menage in June JOURNAL, pages 995 and 1010.

of the larynx. Anemia and embarrassed heart action, together with the incident vomiting, all have a tendency to overtax the larynx and make a bad condition worse. Also, the well-known connection between disturbances of the genital apparatus and larynx plays a part. Kuttner has published a list of 230 of such cases, out of which 16 survived, and of these 16 three died within one year after delivery. Several of the cases developed tuberculosis late in pregnancy. Leaving these out, as they really do not belong early, the number we have is less than 4% who survived. In 12 cases, abortion was performed early, and in 9 the results were favorable. In 7 premature delivery was brought on (after from five to seven months), with the result that 1 improved and 6 died. The infant mortality was 80% when the mother was allowed to reach full term. Hence, it is seen that the best hope is in early abortion, and it is proper to consider the life of the mother, since the chances for the child are slim at best.

One other point in regard to treatment with the X-ray. Tubercular involvement of the larynx is histologically analogous to lupus, and it has been inferred that the ray treatment ought to yield favorable results. But the penetrating power of the ray is not sufficient to effect therapeutic results when applied externally. Efforts have been made to devise tubes which would permit of the application of rays directly to the larynx. Thus far, no successful tubes have been contrived. I would suggest that X-ray specialists may finally devise a successful tube for this purpose.

DR. THIBERGE: I was under the impression that pregnancy had a favorable influence on tuberculosis, inasmuch as it awakens the resistance of the body. I think statistics will show that the mortality in cases in which abortion has been induced is as great, even higher, than in cases where the pregnancy has not been interfered with.

DR. ROUSSEL: In considering tuberculosis of the skin, I have been struck by the relative infrequency of this condition. I do not believe that during my experience of twelve years in the Touro service I have observed three cases a year, and this will cover over 1,000 cases. Tubercular involvement of the skin is not often observed as a primary condition; more often it is found as a secondary involvement, and then in the orifices in the form of ulcers about the mouth and anus. Most authorities seem to argue

that lupus occurs during early life, but my experience is quite the contrary. I have never seen a case in a subject under thirty years of age. Most of my cases were in those over forty, and they, as a rule, had had it for four or five years. The diagnosis is, as a rule, clear. As Dr. Menage has said, it is "written on the skin," and few things resemble it. In regard to treatment, the best results seem to be obtained by the X-ray. In individual cases, with small, discrete nodules, the electro-cautery, if inserted deeply and made to destroy the tissue well beyond the edges of the lesion, is efficient. Methylen blue gives good results in old cases. I have treated several cases in this way, with no return after five years. When the lesions are on the face, the desirability of obtaining a smooth scar must be considered. This is best accomplished by allowing healing to take place under adhesive plaster. In applying the X-ray the tube should be brought as near as practicable to the skin (2 or 3 inches), and the treatment made at short and frequent intervals, just sufficient irritation to bring about a slight dermatitis being necessary.

DR. JOHN J. ARCHINARD: Dr. Dupuy failed to give himself credit for being the first one in this country to establish the diagnosis of anesthetic leprosy from scrapings in cases of hypertrophic rhinitis.

DR. FENNER: I have had extensive experience in taking and reading X-ray negatives of suspected cases of Pott's disease and other conditions of bones and joints, and would warn those doing this work, especially X-ray enthusiasts, not to deceive themselves or be led astray by such findings, for these plates cannot always be relied upon by any means to establish a diagnosis. I have known X-ray negatives to read fractures where there were no fractures, and bone diseases when autopsy failed to confirm the condition. I recall one case in which the X-ray first showed normal conditions and one week later another picture showed separation of the epiphysis. The various conditions under which the exposure is made, quality of plate used, etc., all must be taken into consideration in interpreting negatives. We may say, then, that the X-ray is an adjunct to other diagnostic procedures, and not definite of itself. In the early stages, tuberculosis of the bones and joints is exceedingly difficult to recognize, and it is often necessary that the patient be examined several successive times before conclusions may

be arrived at. Many cases seem at first to exhibit the pictures of the conditon, but later they prove to be something else; others show slight symptoms which are probably overlooked, but later developments prove quite conclusive.

DR. JOHN F. OECHSNER: In view of the fact that early diagnosis is highly desirable, and such elaborate accessories as the X-ray are not always to be had, we are compelled to rely upon clinical methods and certain cardinal signs, such as pain, rigidity, lameness, etc. In any case, we should give the patient the benefit of the doubt and treat the local and constitutional conditions early. The plaster cast is by all means the best method of fixing tuberculous joints, so as to secure rest and healing. The extreme importance of constitutional treatment, sunlight, fresh air, forced feeding, etc., must not be lost sight of in keeping our eyes open to local treatment. Dr. Logan brought up an interesting point relative to the risk of promising cure in Pott's disease. We can never be sure that the condition will not recur, even after apparent perfect healing of the original disease focus.

DR. MENAGE: In answering Dr. Roussel, I will say there is much difference of opinion as to the identity of both types of lupus, the true tubercular type being the one most commonly found in early life. Many hold that erythematous lupus is a purely local evidence of some remote focus of infection, and, therefore, not true primary lupus. French dermatologists claim that erythematous lupus is caused by the circulation of tubercular toxins in the blood, in which case it could be only a secondary involvement. Regarding the smooth cicatrix, Dr. Fox, of New York, uses curettage and friction, with pure carbolic acid, and secures this result very nicely. Dr. Roussel's suggestion for curing the healing ulcer with plaster is an excellent one, which I have constantly employed.

DISCUSSION OF PAPERS BY DRs. DELAUP, MATAS, POTHIER
AND CLARK.

DR. C. J. MILLER mentioned a point of extreme interest in the pathology of tuberculosis of the peritoneum which had not been dwelt upon at length by the essayist, viz., that the fimbriated extremity of the Fallopiian tube is always found open in tubercular peritonitis arising in the tubes. Since the tubes are more frequently the original seat of infection, this point is of great im-

portance in the surgical treatment of peritoneal tuberculosis. Murphy was the first to make this observation, and drew attention to this condition as one of the points in the diagnosis of tubal disease. There is no clubbing of the infundibulum, and, consequently, the infection of a tubercle bacilli and the sero-purulent fluids are being constantly spewed out into the peritoneal cavity. The reactionary efforts of the peritoneal cavity are also brought into play, and between the fluids from the tubes and those of the general abdominal cavity we have the formation of the ascites so commonly noted in one type of peritoneal tuberculosis.

DR. LAZARD: It seems to me the essayists have overlooked a very important dagnostic aid, in speaking of the difficulties attending the efforts to distinguish tubercular from non-tubercular infection of the genito-urinary apparatus. I refer to the ophthalamo-tuberculin reaction. This method now offers the most ready means of detecting tubercular diseases anywhere in the organism, and we should not neglect it. Tuberculosis, involving the testicles, usually begins in the epidydimis, according to all observers. It is not at all easy to distinguish a case of simple orchitis of some standing from tubercular disease. A case comes, giving the history of having had an attack of orchitis some time previously, and upon examination we find induration and the changes which accompany a tubercular infection. I believe we are too often prone to regard cases of this kind as simple chronic inflammation of the appendages without further question. Three months ago I removed the inguinal glands of an Italian, thirty-five years of age, who had a terminal gonorrhea, which might have led to the inference that the adenitis was of gonorrheal origin. Upon careful examination of the excised glands we were enabled to establish the correct diagnosis. In this case the gonorrhea probably prepared the way for the tubercular infection. When tubercle bacilli find their way into the genito-urinary tract, the testicles ordinarily take up the infection eventually. We should be very careful to distinguish tuberculosis of the testicles from syphilitic involvement and sarcoma. The three conditions present many points of resemblance. Removal of the testicle should not be attempted without application of the ophthalamo-tuberculin test, and the use of iodid of potash. I have devised an operative method, which is of further assistance in arriving at a correct knowledge of the nature of the disease, before

the testicle is finally removed. After the testicle is exposed, I split the tunica albuginea and lay open the substance sufficiently to enable me to view the interior of the organ. In the event syphilis or some other condition not necessitating removal is established, the tunica can be easily sutured, without loss of the function. To emphasize the necessity of caution to rule out syphilis before operating to remove these important glands, I wish to mention a case in which tuberculosis was diagnosed and the involved testicle removed. Ten months later the man developed a similar condition of the remaining testicle, and it was inferred at first that there had been extension of the original infection. However, an eruption about the wrists and other significant symptoms led to the suspicion of syphilis. Treatment proved the case to be such, and the remaining testicle was spared.

In bilateral tubercular orchitis we have a right to assume that the vesicles are infected, and double orchidectomy will be futile, if attempted.

In tubercular nephritis, the kidney alone may be the seat of the disease, the urine will show the tubercular bacilli. Removal of the kidney gives relief.

DR. BASS: I am of the opinion that one must have a clear idea of the pathology and nature's method of resisting tubercular invasion if he would be successful in treating the condition. I am not familiar with the details of the pathology of beginning tuberculosis, but I believe it is about as follows: There is soon thrown out around the primary focus a protective wall of lymph, more or less impervious to the exit of the bacilli and their toxins. If this wall proves efficient the encapsulated bacilli eventually die and such tissue as is also included, and leucocytes that may have gone into the focus endergo cheesy degeneration. Lime salts are deposited, and a calcareous nodule is ultimately left at the site of the tubercular focus. In this way spontaneous recovery is accomplished. Recovery depends largely on the ability of the organism to form this wall and maintain its integrity. Sometimes, however, this wall may bring about harmful results, protecting the encapsulated bacilli by keeping out phagocytes and antibodies, which seek to destroy the invading germs. If the tubercular process be acute or rapid, the organism suffers from the absorption of toxic products from the infected focus. In this instance, if we wish

to assist nature's methods we, should strive to increase the efficiency of this protective wall by increasing the coagulating power of the blood. Put the patient at rest and administer calcium chlorid, fibrin ferment and fibrinogen. In this way we may limit the invasion of the micro-organisms and stop the febrile and other septic manifestations. In other words, we may change the condition from a febrile to an afebrile one. The important principle involved in local treatment of open tubercular processes is to allow free access of the blood serum and phagocytes to the infecting agent, or, if possible, augment the natural flow. This means free drainage and is increased by the application of the Bier method of producing hyperemia. Wright advocates the application of a 5% solution of sodium chlorid and 1-2% solution of sodium citrate. The citrate salts prevent coagulation of the exudate, and the chloride favors osmosis, and thereby increases enormously the flow of serum to the parts, which brings in new blood elements and carries away dead bacteria and detritus and prevents blocking of the lymph spaces. After radical operations upon tubercular abscesses and large foci, if at all close to the diseased tissue, microscopic examination of residual fluids, or that subsequently accumulating in the bottom of the wound, shows these to contain tubercle bacilli. To forestall the organism against this it is well to vaccinate the subject three or four days previously, and thereby increase the resistance of the tissues and fluids. In this way we may prevent recurrence of the old process, which would otherwise be probable.

DR. CLARK (in closing): I especially referred to the point commented on by Dr. Miller in his discussion. Dr. W. Mayo, in one of his articles, cites this as a reason for the removing of tuberculous tubes. He regards these leaking tubes as a frequent and repeated source of infection to the peritoneal cavity, and consequent peritonitis.

Relative to Dr. Lazard's remarks regarding the ophthalmotuberculin test in diagnosis, that under ordinary circumstances it was not of much consequence to the operating gynecologist, what the type of infection may be, for, as a matter of fact, the diagnosis is made at the time of operation. The great question was to have sufficient cause to warrant entering the abdominal cavity. These symptoms generally being that found in salpingitis.

I believe that the reason that tuberculosis of the pelvic region is not more often reported from our hospital is to be found in the fact that specimens are not often examined. This, of course, is no criticism of the pathologist, but of those who are careless in destroying the specimens before they can be sent to the pathological department. I think it should be insisted upon, that all specimens should find their way to the pathologist.

DR. PERKINS: I would like to ask Dr. Pothier what are the pathological peculiarities of primary glandular tuberculosis?

DR. POTHIER: In reply to Dr. Perkins, I will say that glandular involvement is always secondary to tubercular infection of other tissues. In my paper I cited instances of involvement of the cervical glands, secondary to tubercular infection of the mouth, pharynx and upper air passages. Again the lymph nodes are always secondarily involved in tuberculosis.

DR. JACOBY: I would like to ask Dr. Pothier how he explains the frequent involvement of the inguinal glands in tuberculous processes, suggesting their primary infection.

DR. POTHIER: Answering Dr. Jacoby, I will say that the inguinal lymph nodes are involved secondarily from different sources, notably the genito-urinary tract.

REPORTS OF CASES AND MEDICAL NEWS.

DR. PARHAM: I would like to put on record the fatal ending of a case previously reported to the Society. This was a case of

RESECTION OF THE ILEO-CECAL PORTION OF THE BOWELS.

At the time the specimen was submitted to Dr. Pothier for microscopic examination, who reported tubercular tissue, there was some suspicion, from a clinical standpoint and from the microscopic appearance of the mass, of cancerous disease. After several weeks following operation, the patient returned, complaining of recurrence of former symptoms. At the second operation evidences of the tubercular nature of the process were manifest. The hyperplasia of cicatricial tissue was well pronounced. There had been no leakage from the junction of bowel done previously. It was not deemed advisable to do any further resection, and an artificial

anus was made. The patient subsequently succumbed. Everything tended to confirm the original microscopic diagnosis submitted by Dr. Pothier.

There is one point regarding the pathology of intestinal tuberculosis which I wish to emphasize, the great hyperplasia of cicatricial tissue presents difficulties and leads to confusion if gross appearances only are regarded. The microscope only reveals proliferation of the epithelioid and giant cells, which is the characteristic condition establishing the diagnosis.

Miscellany.

MESOSIGMOIDITIS AND ITS RELATION TO GYNECOLOGICAL AFFECTIONS.—Emil Ries (*Amer. Jour. Obst.*, 1907) calls attention to the frequency of this condition and refers to his original paper on the subject. Mesosigmoiditis is a condition of chronic inflammation of the connective tissue as well as the peritoneal covering of the sigmoid flexure. This chronic inflammation leads to shrinkage of the mesentery, and in consequence, to a shortening of the base of the mesosigmoid. Instead of the normal delicate, transparent structure, a meso-sigmoid, which has undergone this pathological change, presents white bands of cicatricial tissue and has lost its elasticity to a greater or less degree.

We know of two causes which are firmly established; one the so-called Graser's diverticula in the sigmoid, the other chronic inflammatory conditions extending from neighboring structures, particularly the rectum and the female sexual organs.

The symptoms are not, as a rule, very marked. They consist mainly in constipation, flatulency, and more or less pain in the sigmoid region. Now and then the patient reports a feeling of stiffening in the bowel, localized bloating, with acute sharp pains in this locality. But, as a rule, the symptoms are not sufficient for a reliable diagnosis and the patient usually drags along with a diagnosis of intestinal fermentation, chronic constipation, or some such indefinite diagnosis, until some day, particularly after some indiscretion in diet, symptoms of an intestinal blockade become manifest. These may disappear with or without treatment, and may repeat themselves at various intervals, or may go on to typical ileus, due to volvulus of the sigmoid, to which the meso-sigmoiditis has given the predisposition. A history of a case is given, showing the lesion and the treatment in detail.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Chicago Meeting of the A. M. A.

The fifty-ninth annual session of the American Medical Association, held at Chicago, June 2, 3 and 4, proved to be the largest in the history of the organization. The large attendance was to be expected. The central location of the meeting place, the adequate accommodations and the numerous attractions other than the affairs of the Association all served to swell the registration to nearly 2,000 more than at any previous meeting. The Committee of Arrangements had anticipated the unprecedented attendance, and deserves the greatest credit for the manner in which the various sections were accommodated and the lavish entertainments conducted. The unusual attendance at the section meetings was also a matter of comment.

Many distinguished foreign guests were present, and took a prominent part in the proceedings. Among these may be mentioned Drs. Martin, Jansen, Sauerbruch and Pfannensteiel, of Germany; Schäfer, of Edinburgh, and Collins and Beevor, of London.

The one predominant idea of the entire meeting which seemed to pervade every section was the necessity of educating the public in regard to public medicine. President Burrell, in his address, urged judicious publicity as the new duty of the profession, and advised the dissemination of carefully edited truths through the Broad of Public Instruction. Thayer, in his "Oration on Medicine," discussed on a large scale the public duties of the physician. Harrington, in his "Oration on State Medicine," dealt with the problem of centralized regulation of health matters, and Crile, in his "Oration on Surgery," insists that a campaign of cancer education will be necessary before satisfactory results can be obtained. These splendid addresses, together with the numerous contributions presented in the various sections, no doubt, prompted

the House of Delegates to endorse the recommendation of the Board of Public Instruction, that signed articles by competent authorities on medical matters of public interest be published in the lay press and magazines.

The election of Colonel William C. Gorgas, as president of the Association was a graceful and well-deserved tribute. It was only natural that his name should have been suggested, after the general plea for preventive medicine had come from so many directions, and gave the profession an opportunity to acknowledge its appreciation of his splendid work in stamping out yellow fever in Cuba and making the Panama Canal possible by cleaning up that zone of disease.

The social features of the meeting were a distinct success. Receptions were held at several clubs, the various women's clubs entertained the visiting ladies, and the college reunions and banquets seemed to be growing in favor. The two principal functions, the president's reception and ball and the smoker, both of which were held at the Coliseum, were largely attended.

The meeting will be chronicled in the history of the Association as a distinct success from every standpoint, and will, no doubt, be recalled in the future as having given a tremendous impetus to the cause of hygiene and sanitary science.

New Orleans was well represented at the meeting, and succeeded well in the honors: Dr. Rudolph Matas was appointed one of the delegates of the Association to the International Medical Congress, to be held at Budapest in 1909; Dr. C. J. Miller was made secretary of the Section on Gynecology, and Dr. W. W. Butterworth secretary of the Section of Pediatrics, for which recognition both these gentlemen and New Orleans are to be congratulated.

The New President of the A. M. A.

We of the South should be proud of Colonel W. C. Gorgas, and share with him the distinction of his presidency of the A. M. A. Colonel Gorgas has deserved much of the medical profession, and that the representative body in this country should have honored itself in honoring him is only now a matter to be recorded in the history of his career.

The work of sanitation in Havana, and the even greater work on

the Isthmus of Panama, have been noted by us over and over again. It will need no further encomium to lay our laurel at the feet of this hero among men, who has worked against great odds, and almost against belief itself, in working out achievements which have the lives of thousands of men, women and children to bear witness to the glory of their cause.

We congratulate the A. M. A. in tendering our congratulations to Colonel Gorgas at this recognition of his distinguished services to humanity and to the medical profession as well.

To the "Medical Recorder."

The burden of a long editorial in the June number of the *Medical Recorder*, of Shreveport, is that the JOURNAL was not sufficiently enthused over Dr. McCormack's visit to Louisiana, and that an explanation of this alleged fact is due the State Medical Society.

As we always concede to others the right of their opinion, and the privilege of expressing it as they are best able or willing, we absolutely reserve to ourselves the same right and privilege; hence, we might not have paid particular attention to the plaint of our accomplished colleague had it not been for the following paragraph:

"Now, we do take issue with our distinguished colleagues over this, because we feel that it is an insult to the hard and earnest efforts of the officers of the State Society; and a slight or insult to its officers rebounds on the society."

This is a serious accusation, and we resent it while we deny it. Our pages have always been, and now are, open to the uses of the State Society and any of its component branches as well, and we have served that body even before we became officially associated; if, however, those who conduct the business of the State Society, and who exploit its efforts, do not see fit to use the space available in the JOURNAL, we cannot accept the responsibility for their dereliction. We are sorry that the visit of the A. M. A. organizer was not noticed in our pages with the detail that the *Recorder* and its editor would have liked, but we must insist that the burden of neglect should be placed where it belongs. If the importance of the tour of the then President of the Society, who is also the editor of the *Recorder*, with Dr. McCormack, was sufficient to demand a *post hoc* critical editorial, it would seem to have been

natural to expect that *the chief officer of the State Society should have seen to it that the official organ was furnished with such news concerning the pilgrimage as he thought should have been noticed.*

Now, for the facts. In our March number we published for the department of "Louisiana State Medical Society Notes" a notice of the proposed visit of Dr. McCormack and his itinerary; in the same number we referred to the visit in our "Medical News Items;" in our April number we published our own account of the pilgrimage to the extent of about half a page.

As the tour had been thoroughly and frequently reported in the daily papers, we may be pardoned for not using our space more liberally to tell our readers what they already knew. As far as our enthusiasm is concerned, we claim that it is for us to gauge, both its quality and its quantity, as our judgment and feelings may direct, the *Medical Recorder* to the contrary, notwithstanding.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

MINUTES OF THE TWENTY-NINTH ANNUAL SESSION.

HELD AT ALEXANDRIA, LA., MAY 12-14, 1908.

TUESDAY, MAY 12, 1908.

The twenty-ninth annual session of the Louisiana State Medical Society was called to order by President DOWLING on May 12, 1908, at 9:15 a. m.

REV. FATHER L. MEYNARD, of Alexandria, offered the invocation.

DR. G. M. G. STAFFORD, President of the Rapides Parish Medical Society, delivered the following address of welcome:

It becomes my pleasure, as President of the Rapides Parish Medical Society, to greet you on behalf of that organization and bid you a hearty welcome to our city. We deem it no small honor to be enabled to entertain so distinguished a gathering of the Medical profession of Louisiana. I wish to say that this meeting

of the State Society in Alexandria is in compliance with our own earnest desire, for at a meeting of our local society in March of last year, as the result of a motion unanimously voted on, the State Society was cordially invited to hold its next meeting here, and those of our members who went to New Orleans were authorized to make known our invitation and urge that it be accepted, and the present meeting is the result.

It was our desire to have you with us, to show you our thriving city of which we are justly proud, and entertain you in accordance with its hospitable customs. If we do not succeed in making your brief sojourn in our midst a pleasant one it will be a failure of the hand and not of the heart. We want this meeting to be a success, not only from the standpoint of work accomplished, but from that of pleasure and enjoyment to each individual member here present.

After the arduous duties that are entailed in the practice of medicine, it is well and fitting that we should lay aside our armor for a few days annually and take the recreation that is so justly ours. We hope that this meeting will not only afford a holiday from the monotonous labors of routine practice, but that it will enable us to become better acquainted with our co-workers in a noble and self-sacrificing cause. It is good to meet and compare notes; to discover that others are enjoying the same successes or encountering the same difficulties, in the great fight with man's worst enemy—disease.

We hope that this meeting will prove good from another standpoint—that by co-operation we may be enabled to devise means for the betterment of the profession and the protection of our rights; for there is today no class of men so little appreciated and so poorly paid for their labors as the members of the medical profession.

From that remote, dark period of long ago when Moses wrote the Book of Leviticus even unto this present day, our profession has been a militant one. Our fight has been for knowledge and by degrees the sunshine of enlightenment has burst upon us. It has been a war of centuries. We have had to weather the storms of the ancient and the medieval ages, to buffet the angry waves of superstition and ignorance, but guided by the bright star of perseverance and toil we have safely moored our ship in the harbor of scientific medicine. There are today few diseases in which we are not prepared to give relief to the sufferer, and in many instances restore to him that greatest of all boons—good health. And yet in spite of our struggles and our victories, and this wonderful evolution in medicine, and the magnitude of the discoveries made by members of our profession, the law-makers of our commonwealth

have recently repudiated us for the sake of objection raised by quacks and charlatans.

In union there is strength—we should see that every legal practitioner of medicine in the State of Louisiana becomes a member of this society, and by our united efforts overcome this narrow-minded ill-deserved prejudice to our efforts on behalf of the public weal.

I wish to assure you gentlemen that the medical men of Rapides Parish are ready and willing to lend a helping hand for the general upbuilding of the profession and the enactment of such legislation as will redound to the public good and the protection of our just rights. You have but to sound the tocsin of battle and we will be among the first to reach the firing line.

This meeting will have been a grand success if it but make a move in that direction; but, gentlemen, we want you to know and to feel that you are welcome anyway. We are glad to have you with us whether or not anything of the kind is accomplished. We are glad to have you for your own individual presence, and we sincerely hope that at some date in the future we may have the pleasure and the honor of again entertaining you.

Gentlemen, you are welcome.

The report of the *Committee on Arrangements* was then presented by DR. C. J. GREMILLION, Chairman of that Committee.

On motion of DR. BARRIER the roll call was dispensed with, and on motion of DR. CHASSAIGNAC the reading of the minutes of the last meeting was dispensed with and the minutes adopted as published.

The ANNUAL REPORT of the PRESIDENT was delivered by DR. OSCAR DOWLING, as follows:

It is with a feeling of pride and appreciation of the dignity of the occasion that I stand before you today to deliver the President's message.

Your presence here is a good omen. It is a pledge of devotion to the duties incumbent upon every member of this Society.

I embrace this opportunity to again thank you for the honor you have conferred upon me in making me your presiding officer. You could not have paid me a higher compliment; and I could not desire more. My predecessors have been men of high attainments in our profession, and worthy of your marked confidence. Amidst the surroundings I am not forgetful of my own unworthiness and inability to measure up to the requirements of the office. For my shortcomings I crave your indulgence.

I am glad to say we have had a fairly prosperous year, despite

the general pecuniary depression and the dispirited condition of the public mind. Those of you who are familiar with the history of the Society, will remember that in 1902 there were only four local societies; Ruston Medical, Tallulah Medical, Shreveport Medical and Orleans Parish Medical, with a total membership throughout the State of 419, embracing 45 Parishes. Today we have 48 Parish Societies and our total membership represents 936. There are 12 unorganized Parishes, and we have members from all of these except two—six having been organized this year. During the year I have traveled 3,230 miles in the interest of the Society; have sent out more than seven thousand pieces of mail. The Official Register of Practitioners in Louisiana, as published by the State Board of Health 1906, shows 1,916; Polk's Directory, 1,664; the American Medical Directory, 1,551. Checking and re-checking with the assistance and co-operation of the State Board of Health all these names we found there were 2,074, so letters were sent each one. Of these 53 were reported dead, 99 removed from the State, 217 not registered, 24 in the State reported as having left and 286 had changed post offices, making a total of 579 mistakes in the official directory. I should have added that this included those who passed the State Board during 1907 and located in the State.

The State Board of Health checked over the Roster of Members of this Society for 1907 and advised me as follows:

Not registered 50, change of P. O. and Parish 90, dead 8, left the State 16, difference in initials 25, difference in spelling names 7, reported left the State 2, post office in wrong Parishes 17, renewed, no address given 1—total 216.

When this Society was reorganized in 1903, it was with the hope that it might bring about unity of the profession of the State for its own elevation and for the public good. The means to the end were to be found in complete organization of the Parish Societies and, through them, to reach every man who proposed to practice medicine in Louisiana, and by a system of its own, looking to the exclusion of the unworthy, to give our people a class of men who, when the standard aimed at should be attained, would be fully and thoroughly equipped for the great responsibility laid upon them.

A careful survey of the Society work for the past year will reveal the fact, in some departments, success has attended our efforts with gratifying results, while, in others, but little progress has been made. An earnest appeal was made to the officers, vice-presidents and councillors touching the perfection of the various organizations and the ultimate hope of bringing the unorganized into our family circle. One serious obstacle in the way of our progress

is the wonderful indifference, on the part of the profession, to the appeals, and repeated appeals, by letters for information. Many such letters may seem trivial to the person addressed, but every one of them calls for items of information necessary to the successful performance of some detail of our work. Every member of our Society understands that the honorable positions held by its officers carry with them many responsibilities and duties, many of which have to be discharged by correspondence with the profession throughout the State. If these efforts on the part of the officers are treated with indifference, the objects sought are not only defeated, but the officer is humiliated at not being accorded the common courtesy due him. It is hoped no future president will have occasion to complain on this score, or will be left to speculate as to why he does not receive answers to many of his letters—especially when stamps are enclosed.

In this connection, I cannot refrain from saying the time has come when we should establish and maintain a Medical Journal, to be edited and conducted upon the highest plane of ethical and scientific excellence, and in which should be published all papers and reports and all proceedings of this Society and the component societies, as well as other medical news matter of general interest to the profession. I recommend the establishment of the Louisiana State Medical Society Journal to be owned and controlled by the Society, and edited by the Secretary and a Board of Trustees.

The collection of Vital Statistics should claim our attention. No argument is necessary to demonstrate its vast importance. Among the first questions asked by foreigners, who contemplate moving here is, "What is your death rate? Send me a copy of your Vital Statistics." If the State gave ten thousand dollars for the purpose of collecting vital statistics alone, it would be amply reimbursed for it. To the end that this work may be done, we appeal to you, brethren, throughout the State, if you have been indifferent to this matter, to come forward to the work and demonstrate the importance of the obligation here laid on us as a sacred trust to be honestly fulfilled.

Medical education is receiving due consideration and we point with great pride to the work done by the Committee. Improved methods of teaching and prolonged terms of study have been adopted by our schools, and the others should be required to adopt the same standard or go out of business. With the professional standard in every way elevated, the people will have better medical service than they had under former conditions. The impression prevails that the laws to regulate the practice of medicine have been enacted wholly in the interest of the doctors; that it creates a corporation for monopoly. Would any rational man be willing to entrust the life of his sick wife or child to a doctor who

was ignorant of the fundamental principles of medicine. And if not theirs, why any other man's wife or child? If legislatures enact laws for the protection of crops, of forests, of stock, of game, of fishes, shall they be less indifferent of afflicted men, of suffering women and helpless children?

The State Board of Medical Examiners, operating under the rules and regulations of this Society and the laws of Louisiana; is the only safeguard of the commonwealth against the imposition of ignorance, stupidity and recklessness. It is perfectly proper that the State should demand a test of medical qualification. Engineers and pilots have to undergo careful and through examinations in order to satisfy the Government and the people that they are competent to perform the duties intrusted to them. The teachers in our public schools are not exempt from examinations. Why then should not the doctor be examined? Certainly, an ignorant physician is far more dangerous than either an incompetent engineer, pilot or school teacher.

Much complaint has been made against the Board of Medical Examiners on account of its failure to enforce the laws, and, looking to this end, we believe it would be well to consolidate the State Board of Health and the State Board of Medical Examiners, and allow the fees paid by applicants to go to a common fund to be used in prosecuting offenders. Something must be done, and we submit this suggestion for your consideration. The Board of Examiners will, no doubt, admit that they have done but little to suppress the illegal practice of medicine in Louisiana. A careful checking of the roster of the membership of the State Medical Society with those registered at the State Board of Health revealed—this year—217 physicians not registered, 50 of whom were members of the State Medical Society. This should not have occurred, and no one but the Board of Medical Examiners can be held responsible, since it is their duty to see that every practitioner is registered. I understand they do not even keep a record, but depend upon that of the State Board of Health. Section 15, Act 49 of 1894.

Co-existent with the power to grant license to practice medicine should be that to revoke it. Many men are granted the privilege to practice who afterward prove themselves totally unfit to possess it. The doctor's life should be pure, above reproach, ethical, and free from the suspicion of criminal practice. Whenever it falls to a lower level of morals, or to disreputable and criminal professional practices, there should be some means by which the public could be shielded from this abominable conduct. Some men of this character have come to the notice of the president during this year.

Without conscience or character, intemperate, immoral, they unhesitatingly violate the chasity of our women and for greed or gain assassinate the unborn babe. A law should be enacted by the Legislature giving our State Board the right to try, professionally, any such doctors, against whom charges have been preferred, and to revoke his license, if proven guilty.

While the Legislative Committee will ask the Legislature to amend our law, would it not be well to have the title changed to read; "AN ACT, For the Protection of the Health, Lives and Pocket of the People against Ignorance and Dishonesty."

The Medical Expert (for which I am indebted to Mr. Brittin, of St. Louis). In Germany and some other continental countries, the Medical Expert is an officer of the court, and when his testimony is needed—he may be called by either side—and, of course, under those circumstances, what he has to say has much weight with the Court and Jury. There is also some provision made for the appointment of a Commission of Experts, which, in certain cases, may be called upon for a report. If one or more of the Commissioners do not agree with the majority they may make a minority report, and both are submitted to the jury. Of course, either of these systems gives to the expert as an officer of the court a judicial character, and often the technical question submitted through the expert is the turning point in the case, and his determination of it may be the determination of the entire case. We recommend for your consideration the consideration of this subject, subject, of course, to suggestions contained in the report from the Committee to be heard at this meeting.

I recommend that the Secretary of the Parish Society be required to send to the Secretary of the State Society annual reports, on paper especially printed and ruled, showing the correct list of all physicians residing in that parish, who are members of the Society, with their names in full, college and date of graduation and date of certificate to practice medicine, with postoffice address. This list also to show the same of all non-members, and an appendix showing the illegal practitioners, besides the names of those who have removed from or into the parish, with the postoffice at each place. By this means we would be enabled to keep a correct roster of the physicians in the State.

I recommend that the State be divided into three sections, and the vice-presidents assigned the duties of leading with the co-operation of the Councillors to assist the presidents in organizing, and stimulate the activity of the profession. If possible, the expenses of the officers of the State Society should be paid when they give their time to this work. The vice-presidents, councillors, secretary and treasurer should make monthly reports to the president. With

good, active men to fill the various offices, medical organization enthusiasm would become widely contagious with the postgraduate work, which is being adopted by so many of our societies, that we would have efficient work in every nook and corner of the State. Our very existence, together with the success of the plan according to which we are organized, depends upon the autonomy and efficiency of the Parish Society. If they become lukewarm or indifferent our supports are weakened and our future clouded.

We need improvement in our Parish Societies. Few doctors know how to run a meeting. They get together once a month, or once in six months, or maybe twelve months, in some places, and see nothing gained by it, because they do not know how to take hold. If some means could be devised to increase the scientific work, the reading of papers and the recital of cases and experiences, with the adoption of postgraduate work, then the average doctor could see the profit to himself in increase of information and increase of influence and prestige among his fellows and his patrons—and more Society work would follow as a consequence. Can we not make our Parish Meetings more profitable? Can we not send out from this meeting more enthusiasm and life which will affect the whole profession in the State. Every doctor who attends the State Meetings should go home a revivalist in his own parish.

With the improvement to the admission to practice medicine in this State, we should be in line for reciprocal relations with the examining boards of other states. The mere fact that a physician has practiced for years in another state and moving to another is unable to pass a licensing board, by no means proves that he is an ignoramus. He is often rusty on the elementary subjects, and may thus be disqualified. There is no question of the desirability of interstate reciprocity of licensure on the broad ground on which it should be based.

With the influence of the leading doctors and the intelligent public the patent medicine evil is beginning to receive attention. The newspapers cannot, as yet, with one single exception, be depended upon to raise a voice of warning against these nostrums, and the nefarious methods used to create a demand for them. This class of advertising, with that of the quack doctor and charlatan and his wonderful methods, is a source of much revenue. If this business is working great harm, and we honestly think it is, is it a virtue for the newspapers to close their eyes to the fact and continue to take a part of the money so obtained for their share in disseminating the false pretenses by which it is obtained?

I commend to your earnest consideration and approval the efforts to secure a home for those afflicted with tuberculosis. Papers

on this subject have been prepared and will be submitted to this body.

I recommend the appointment of a Press Committee to confer with the Medical Committee, which will be appointed by the Press Association, with the hope of bringing about more cordial relations, and any differences which might arise may be submitted to these committees for adjustment.

Let us elect to office and on committees men we know will work and in whom we can repose implicit confidence, and when we have thus elected them let us give them our unequalled support and encouragement. Where an officer proves inefficient or derelict in the duties imposed upon him, the ballot, and not personal enmity, is the remedy. It is an honor to be numbered among the officers of this Society, and every office should be filled by men who will work—men who are alert, alive and active. Take a quiet hour now and then and think if there is anything you could propose which would add to the fame of the Louisiana State Medical Society and strengthen her bulwark.

Before closing, I would be remiss were I to fail to publicly acknowledge the great debt of gratitude the profession of Louisiana owes Dr. J. N. McCormack, Chairman of the Organization Committee and the American Medical Association, for the valuable work rendered this State during the month of March.

One of the most tangible results of his itinerary under the auspices of this Society, is the crusade now being waged against quacks and quackery—not only in New Orleans, but throughout the State. He lectured to the public in New Orleans, March 27, and the first illustrated article and editorial appeared in the *New Orleans World*, March 29, which quoted from his lecture.

During the year one of the local societies appealed to me for a decision relating to an application for membership by a female physician, who was in every way qualified for membership, unless for the reason that she was a woman. After going carefully over the Constitution and By-Laws, and failing to find where any provision was made for excluding women physicians, and knowing they are admitted to full membership in the American Medical Association and our neighbors, Mississippi and Texas, I ruled that she was entitled to membership.

I recommend that this Society appoint, annually, fraternal delegates to the meetings in Arkansas, Mississippi and Texas, and that they be requested to send like delegates to this Society.

I recommend that the Constitution be amended so as to establish the House of Delegates, which shall have charge of the whole business of the Society, and that the regular meetings of the Society be devoted to purely scientific work.

I earnestly hope that your deliberations and interchange of thoughts and experiences may redound, not only to your personal benefit, and that of your immediate patients, but also to that of the communities at large which you represent; and I sincerely trust that this temporary laying aside of your responsibilities may be the means of refreshing and reinvigorating you, and that after this short respite you may go back to your homes with renewed energy and zeal for your work.

THE ATTAKAPAS CLINICAL SOCIETY.

At a meeting held in New Iberia, La., June 10, the Attakapas Clinical Society was organized. The following gentlemen were present: Drs. J. T. Abshire, Le Roy; L. O. Clark, Lafayette; W. F. Carstens, New Iberia; A. C. Eustis, Abbeville; I. T. Rand, J. Wofford Sanders, H. A. King, J. W. K. Shaw, Guy A. Shaw, H. A. Comeaux, New Iberia; J. P. Harrison, Cade; J. A. Villien, Maurice; R. D. Voorhies, Lafayette; G. P. Minvielle, Jeanerette; A. Landry, Delsombre; Jackson, Amelia; F. O. Darby, Loreauville; M. B. Tarleton, Jeanerette; Guilbeau, Grand Coteau; Douglas Duperrier, Erath; I. H. Levin, Berwick; W. D. Roussel, E. M. Williams, Patterson.

After the adoption of a Constitution and By-Laws the following officers and committees were elected to serve the Society for the next year: Dr. H. A. King, New Iberia, President; Dr. R. D. Voorhies, Lafayette, First Vice President; Dr. W. D. Roussel, Patterson, Second Vice President; Dr. Espy M. Williams, Patterson, Secretary-Treasurer. Committee on Scientific Papers and Program—Drs. Eustis, Clark, Harrison. Committee on Publication—Drs. Sanders, Abshire, Williams. Committee on Judiciary—Drs. Minvielle, Guilbeau and J. G. Martin (Lake Charles).

DR. EUSTIS presented a paper entitled "Regional Anesthesia: Its Adaptability to the Country Surgeon," reporting two cases of partial amputation of the foot under analgesia induced by blocking of the sciatic nerve. Discussion was opened by Dr. Williams, with a consideration of the value of spinal analgesia, as to its safety, simplicity and general efficacy for operations below the waist line, twenty-one cases having been done by him in the last seven months without untoward results in any. Further free discussion took place by Drs. Abshire, A. W. K. Shaw, Duperrier and Levin.

DR. ROUSSEL read a paper entitled "A Few Clinical Results in the Use of Antistreptococcic Serum." Discussed by Dr. Eustis, Dr. King, Dr. Abshire and Dr. Williams.

Other papers read by title were "Volvulus of the Intestine Complicating Typhoid Fever," by Dr. C. A. Gardner, Sunset; "Report

of a Case of Congenital Absence of the Uterus," by Dr. J. O. Duhan, Lafayette.

The next meeting of the Society will be held in Lafayette in the month of September, the date to be fixed later by Dr. King, the President.

The Plaquemines Parish Medical Society held its fifth annual meeting at the Courthouse, Pointe-a-la-Hache, on the 8th of April, 1908, with Dr. V. O. Schagot presiding. The following officers were elected to serve during the ensuing year: Dr. H. L. Bal'owe, of Buras, President; Dr. C. Y. Seagle, of Belair, Vice President; Dr. V. O. Schayot, of Point-a-la-Hache, Secretary-Treasurer.

Medical News Items.

HEALTH ON THE ISTHMUS.—The general death rate for the Canal Zone for the month of April, 1908, was 20.4 per 1,000; for April, 1907, the rate was 40.97. The population of the Canal Zone in 1907 was 97,815, and in 1908, 116,178. This reduction in the death rate, with the great increase in population, and the conditions of morbidity associated with the same, is a remarkable showing for the sanitary measures practiced. Among the employees in the Canal Zone it is announced that there were no deaths from typhoid fever and only one death from malaria. In 1907, during April, there were treated in the hospitals 816 cases of malaria, with 10 deaths; in 1908, during April, there were treated 407 cases of malaria, with no deaths, showing a decrease in the number of cases of malaria of one-half, and a marked decrease in the severity of its type. No case of yellow fever has occurred on the Isthmus since May, 1906.

ST. LOUIS SKIN AND CANCER HOSPITAL.—This hospital has recently received a bequest of \$100,000. This institution is only a few years old, but has become thoroughly established, not only in its most excellent work in the clinic field, but for the laboratory work in studying skin diseases and cancer. The promoter, Dr. M. F. Engman, and his coadjutors, deserve great credit for the success to which the institution has attained, and are to be congratulated on this recent acquisition of funds.

THE ASSOCIATION OF AMERICAN TEACHERS OF THE DISEASES OF CHILDREN met in Chicago June 1. Among the papers read was one on "Case teaching in Pediatrics," by Dr. W. W. Butterworth, who is Associate Professor of this branch in Tulane. Dr. Charles Douglas, of Detroit, was elected President of the Association, with Dr. Samuel W. Kelley, of Cleveland, as Secretary. A committee was appointed to consider the adoption of uniform methods of teaching in colleges, to be composed of Drs. S. W. Kelley, as Chairman, and A. C. Cotton, Chicago; H. M. McClanahan, Omaha; W. C. Hollopeter, Philadelphia, and W. W. Butterworth, of New Orleans.

A. M. A. NOTES.—Dr. R. Matas was named as one of the delegates to the International Congress to be held in Budapest in August, 1909. Dr. C. J. Miller was elected Secretary of the section on Gynecology. Dr. W. W. Butterworth was elected Secretary of the section on Diseases of Children.

Dr. Edmond Souchon presented a fine exhibit of anatomical specimens, especially prepared by him by a method of his own. For this exhibit an award was made in the form of a diploma "For Improved Method for the Preservation and Exhibition of Anatomical Specimens." The award was made by the Section on Scientific Exhibits and should be a matter of congratulation both to Prof. Souchon and to the Tulane Medical Department as well.

Tulane was well represented at the Alumni reunion at Chicago on the night of June 2. There were about fifteen who gathered at the Union Hotel, and it is reported that the enthusiasm and Tulane spirit were both gratifying.

The new President, Col. W. C. Gorgas, of Ancon, Panama, was graduated in 1875 as A.B., by the University of the South, and in 1879 as M. D., by Bellevue Hospital Medical College, where he became a member of the house staff. He entered the Medical Corps of the United States Army in 1880 as first lieutenant, becoming captain in 1885, major in 1898, and colonel by special act of Congress, in 1903, in recognition of his splendid work in ridding Havana of yellow fever. In 1903 the University of Pennsylvania conferred on him the honorary degree of doctor of science. His appointment as chief sanitary officer of the Isthmian Canal Zone, the work he did there in face of the most trying

obstacles and limitations, and his subsequent elevation to an authoritative position as a member of the commission, with the grand results to which the President himself has borne testimony, are matters of common knowledge. It cannot fail that his scientific attainments and proved executive ability shall add fresh luster to the already illustrious office of President of the American Medical Association.

RAILWAY SURGEONS FORM SOCIETY.—The Tri-Railway Surgeons' Association, composed of the surgeons of the New Orleans and Northwestern, Alabama and Vicksburg, and Vicksburg, Shreveport and Pacific Railroads, was organized during the month of June. The purpose of the organization is the promotion of professional brotherhood and the mutual improvement of members by the discussion of questions pertaining to railway surgery. Eighteen of the twenty-four members attended the meeting. A constitution and by-laws were adopted, and the following officers elected for the year: C. W. Bufkin, President, Hattiesburg, Miss.; J. J. Haralson, First Vice-President, Forest, Miss.; H. F. Wilkins, Second Vice-President, Rayville, La.; E. D. Martin, Secretary, New Orleans; R. W. Thompson, treasurer, Lumberton, Miss.

A banquet, at which addresses were made by members and guests, was held at the Old Hickory, to mark the formation of the Association.

SENTENCE CONFIRMED.—The Supreme Court, on May 12, confirmed the decision of the lower court, whereby Dr. Charles E. Thomas, a colored physician, of Anniston, convicted on the charge of malpractice, was sentenced to imprisonment for three years in the penitentiary.

THE FIRST SPANISH CONGRESS ON TUBERCULOSIS will be held in Zaragoza, Spain, on October 2 to 6, 1908.

THE SECOND INTERNATIONAL LEPROSY CONFERENCE IS ANNOUNCED for the end of August, 1909, and will be held at Bergen, Norway, under the auspices of the Norwegian Government.

THE AMERICAN PUBLIC HEALTH ASSOCIATION will meet at Winnipeg, Manitoba, August 25 to 28, 1908. The preliminary programme announces an interesting list of topics for discussion.

THE INTERNATIONAL CONGRESS ON TUBERCULOSIS.—Attention is again called to the fact that the International Congress on Tuberculosis will meet in Washington, September 21 to October 12, 1898. Dr. Edward L. Trudeau has been elected honorary President, and Vice-President Fairbanks, Speaker Cannon, and the Governors of the States have been asked to serve as the Vice-Presidents.

The German Committee on Arrangements has a membership of over one hundred and fifty of the highest dignitaries of the Empire. Belgium has a committee of sixty-four, all distinguished sanitarians.

The interests of this Congress point to a most successful meeting.

THE SIXTEENTH INTERNATIONAL MEDICAL CONGRESS will be held at Budapest, August 29 to September 4, 1909, under the patronage of the Emperor of Austria.

THE SOUTHERN MEDICAL ASSOCIATION will meet in Atlanta, Ga., November 10 to 12, 1908, under the Presidency of Dr. B. L. Wyman, of Birmingham. Dr. Frank Watson, of New Orleans, is one of the Vice-Presidents, and Dr. W. W. Butterworth, a councillor. Dr. Oscar Dowling, of Shreveport, is the Secretary-Treasurer, as we have already announced.

Applications for membership will be furnished by the Secretary on request.

CLIPPINGS.—There were 38 new applicants before the State Board of Dentistry during May, and 26 received certificates entitling them to practice.

Jefferson Parish has organized a medical society.

The Alabama State Board of Health issues a monthly bulletin.

There were 153 doctors before the last meeting of the State Board of Medical Examiners in Louisiana, and only 22 failed to pass the examination.

The JOURNAL acknowledges receipt of the 142d annual announcement of the Medical Society of New Jersey.

The total number of doctors registered at the A. M. A.'s 59th annual meeting at Chicago, was 6,459, the largest gathering of this body.

A petition has recently been circulated by the Atlanta College

of Physicians and Surgeons, asking that the institution be made a branch of the State University.

Dr. L. E. Poree and Dr. E. A. Rappanier, of New Orleans, were each fined \$50 for failing to report cases of contagious diseases to the Board of Health.

According to the latest reports the vital statistics of France show a still further marked decrease in the birth rate—33,000 reduction in 1907, against an average decrease of 12,000 a year for the preceding seven years.

PERSONALS.—Dr. B. J. Vance, of Checotah, Okla., was elected President of the Oklahoma State Medical Association at its annual meeting at Sulphur, Okla., on May 12 and 14. Dr. E. O. Barker was made Secretary.

Dr. R. F. Harrell, of Alexandria, La., has gone to London and Edinburgh for the summer, to take special work in the eye, ear, nose and throat, and will return to his practice early in the fall.

Dr. E. L. McGehee, of New Orleans, President of the Louisiana Anti-Tuberculosis League, made a tour of the State in June, delivering lectures on "The White Plague."

Dr. C. M. Menville was recently elected health officer of Houma, La.

Dr. and Mrs. Otto Lerch are now in Europe, and will remain until the first of October.

Dr. Rudolph Matas, delivered the doctorate address at the annual commencement exercises of the College of Physicians and Surgeons of the University of Illinois, held on June 9.

Dr. and Mrs. John B. Elliott are at Highlands, N. C., where they will reside in the future. The doctor has purchased a farm in the mountains.

Dr. John B. Elliott, Jr., is in Europe for the summer.

Dr. M. D. Haspel has returned from a trip to Asheville, N. C.

Dr. George H. Tichnor, Jr., is at Ann Arbor, Mich., doing scientific work at the University of Michigan.

Dr. J. J. Ryan has been spending some time in New York visiting clinics.

REMOVALS.—Dr. W. S. Martin has moved from Clarks to Standard, La.

Dr. T. C. Breaux has left Whitecastle and gone to Donaldsonville to practice.

Dr. E. S. Keys has moved to Gonzales from New Orleans.

Dr. Edward T. Newell, formerly of St. Joseph, La., has gone to Chattanooga, Tenn., where he has purchased the Nolen Infirmary, one of the largest in that city. The name is to be changed to the Newell Infirmary.

MARRIED—On June 19, 1908, Mr. Samuel E. Hale, of New Orleans, to Mrs. Elizabeth Favre, of Crawley, La.

On Tuesday, June 2, 1908, Dr. Dalton H. Trepagnier was married to Miss Anna Otis, of Natchez, Miss. They will make their home at Waterproof, La.

Dr. Thomas Ragan was married to Miss Martha Hunter on May 24, 1908, at Ruston, La.

Dr. A. V. Hunter and Miss Gladys Hagoood were married on May 24, 1908, at Crystal Springs, Miss.

Dr. Charles C. Thompson, of Columbia, Miss., and Miss Janette Ford, of the same place, were married on June 17, 1908.

DIED.—On June 4, 1908, Dr. J. C. Culbertson, editor and publisher of the Cincinnati *Lancet Clinic*. The doctor was 67 years of age.

Dr. A. Morgan Cartledge, one of the editors of the *Louisville Monthly Journal of Medicine and Surgery*, died on May 4, 1908.

Dr. G. W. Jones, of Denham Springs, a member of the State Legislature, and distinguished in his community, was killed in a railway accident on June 19, on his way to Baton Rouge. Dr. Jones was 59 years old at his death, a native of Livingston Parish and leaves a bereaved widow and children.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Gynecology and Abdominal Surgery. Edited by HOWARD A. KELLY, M. D., F. R. C. S. (Hon., Edin.), and CHARLES P. NOBLE, M. D. Illustrated by Hermann Becker, Max Brodel, and others, Volume I. W. B. Saunders & Co., Philadelphia and London, 1907.

Since it became known that Drs. Kelly and Noble had in course of preparation an extensive work on Gynecology and Abdominal Surgery, the profession has awaited its appearance with considerable interest. The first volume, dealing with gynecological subjects, has appeared and proves to be a magnificent book combining the highest type of illustrations and contributions from acknowledged authorities of the present day.

The first volumes is considerably more than a text-book. The various contributors have been allowed wide scope in dealing with the historical development of gynecology, and elementary matters, usually found in text-books, have been eliminated. The scope of the work is best expressed in the preface in which the editors call attention to the fact that this is the first time an attempt to cover both fields of gynecology and abdominal surgery in this way has been made. "In the preparation of this work the editors have been continually impressed with the intimate relationship which exists between gynecology and abdominal surgery. Our associates, competitors, and generous critics, the general surgeons, will not deny that the great advances made in the gynecologic field have constituted the very backbone and marrow of the abdominal surgery of to-day, and that *pari passu* with the labors of the gynecologists have gone the developments of the surgery of the abdomen at large. The volumes embracing both subjects are living witnesses of the unity of gynecology and abdominal surgery in the practical field, which it is our pleasure to proclaim, as we thus once more assert the unity of our art and the fraternity of those who practice it."

The arrangement of Vol. I is quite different from that adopted in any previous work of this kind. Both obstetric and gynecologic operations are discussed in detail and often the subject is dealt with from a different view by another author.

"Certain obstetric and gynecologic-obstetric subjects have been included in our list, such as the puerperal injuries and infections, the treatment of incomplete abortion, ectopic pregnancy, and the Cesarean operations." These were added with the belief that they "will prove not only of practical value to the physician, but will give the general surgeon practicing abdominal surgery without an obstetric training a broader and fuller view of the subject."

This work will prove of great value not only to the man doing clinical work, but to the pathologist who is making a systematic study of the bacteriology and pathology of the diseases of women. The editors have expressed the belief that no other monograph on pathology as complete as the one that appears in this book has yet appeared in the English language. This will be no doubt the opinion of any one who has the occasion to refer to the work done here by Dr. Elizabeth Hurdon.

It is unnecessary to call attention to the illustrations further than to say that this part of the work has been done under the supervision of Mr. Hermann Becker and Mr. Max Brodel. These two artists have done as much to put the art of illustrating in medicine upon its present high plane as any other other artists in the profession.

A more detailed review of this work will be forthcoming when the second volume appears. In this way the work of each of the contributors in both volumes will be at hand.

The authors selected to write these volumes are: Brooke M. Anspach, M. D.; J. M. Baldy, M. D.; J. B. Bloodgood, M. D.; Henry T. Byford, M. D.; John T. Clark, M. D.; George M. Edebohls, M. D.; John M. T. Finney, M. D.; William W. Ford, M. D.; Anna M. Fullerton, M. D.; Fernand Henrotin, M. D.; Barton Cooke Hirst, M. D.; Guy L. Hunner, M. D.; Elizabeth Hurdon, M. D.; George Ben Johnston, M. D.; Howard A. Kelly, M. D.; Beverly MacMonagle, M. D.; Edward Martin, M. D.; Floyd W. McRae, M. D.; G. Brown Miller, M. D.; B. G. A. Moynihan, M. D.; John B. Murphy, M. D.; Charles P. Noble, M. D.; Richard C. Norris, M. D.; J. A. Ochsner, M. D.; Eugene L. Opie, M. D.; James F. W. Ross, M. D.; Alexander J. C. Skekne, M. D.; J. C. Webster, M. D.; X. O. Werder, M. D.; and J. Whitridge Williams, M. D. MILLER.

Surgery: its Principles and Practice by Various Authors. Edited by W. W. KEEN. Publishers: W. B. Saunders & Co., Philadelphia.

The second volume of this work covers the diseases of the bones; surgery of muscles, tendons and bursae; orthopedic surgery; surgery of the lymphatic system; surgery of the skin; pathology of the chief surgical disorders of the nervous system and its importance in clinical diagnosis; surgery of the nerves; traumatic neurasthenia, traumatic hysteria, and traumatic insanity; surgery among the insane; the surgery of insanity, and of the spine, every chapter of which is written by an author of international reputation. Each chapter deals fully with the subject, the cuts are numerous, clear and explicit; the bibliography at the end of each chapter, a new feature in text books, shows that the latest works on all subjects have been cited and adds to the value of the book by referring the reader to the original articles. Whereas this volume as a whole is complete, of especial interest are the chapters on the pathology and surgery of the nerves, and surgery among the insane. Great advances in treating the latter have been made in recent years. It is now possible to give relief to many of these poor unfortunates by surgical intervention, who a few years ago were believed to be beyond the sphere of human aid. On comparison this edition gives the impression of being the best work on surgery yet published. The remaining volumes are soon to appear, and if as complete as the two already published, Keen's Surgery will be a lasting monument to both the editor and its authors. MARTIN.

The Development of the Human Body. A Manual of Human Embryology, P. PLAYFAIR MCMURRICH, A. M., Ph D. Third Edition. 267 Illustrations. P. Blakison's Son & Co., Philadelphia.

The author of this text has for so long identified himself with the laboratory field of anatomy that his contribution and each new edition must attract the attention of those interested in the study of the human body. The text shows the trained teacher, as it is clear in its presentation and accentuated by illustrations which are all valuable. DYER.

Mosquito Life, by EVELYN GROESBECK MITCHELL, A. B., M. S. G. P. Putnam's Sons, New York and London.

This work should be of especial interest to the student of mosquitoes in the Southern country and particularly in Louisiana, because of the association of the author with the late Dr. J. W. Dupree of Baton Rouge, himself no mean entomologist.

The work is practically written and the illustrations made simple enough for the average reader. Not only are the types of mosquitoes described but also their relation to especial diseases. Reference is made to the New Orleans epidemic of 1905, and frequent quotation of correspondence of Dr. Dupree with scientists and others is related. In the appendix a note is entered on the relation of mosquitoes and leprosy but no credit is given to Dr. E. S. Goodhue, of Hololua, who largely deserves the honor of determining the lepra bacillus in the *Culex fatigans*.

Altogether the book is readable but has no ear marks of distinguished scientific value.

DYER.

Surgical Applied Anatomy, by SIR FREDERICK TREVES, Bart., etc. Fifth Edition, Revised by ARTHUR KEITH, M. D., F. R. C. S., etc. Lea Bros. & Co., Philadelphia.

This excellent pocket-size handbook has always been a valuable aid to the student and practitioner looking for ready information and in this it still fulfills its object. The illustrations are always precise and apt. The small size of the volume commends it.

DYER.

The Diagnosis and Treatment of Diseases of Women, by HARRY STURGEON CROSSEN, M. D., with 700 Illustrations, C. V. Mosby Medical Book Publishing Company, St. Louis, 1907.

This is a volume of 800 pages devoted exclusively to the diagnosis and treatment of Diseases of Women, no space being given to etiology, pathology nor minor operative technic, except as necessary to bring the work to its highest usefulness as a practical guide in the lines indicated.

As a consultant and teacher the author has found that the two principal stumbling blocks encountered in the way of accurate gynecological work are, first, the difficulty of determining exactly the conditions present in the pelvis, and, second, the lack of a clear understanding of the indications governing the selection of the particular treatment best adapted to each of the various classes of cases under each disease.

The author's modest claim to have restricted the scope of his work must be questioned as the book is examined, in fact he nearly encompasses the entire field of gynecology.

He has evidently appreciated the value of illustrations in medical teaching.

Over 700 illustrations appear in the work, all carefully selected, with the view of obtaining the best illustrations available. Two hundred and twenty of the illustrations are originals, and are introduced more especially to show the actual care and handling of patients, thus bringing to those who have not had the opportunity of hospital training, many facts which cannot be satisfactorily presented in any other way.

The work does not take the place of a text book because of the above mentioned limitations, but it contains much valuable matter that can be studied in conjunction with a work devoted more to pathology and operative technic.

The illustrative feature is particularly praiseworthy in that the author has shown excellent judgment in his selections, and has been encouraged by his publishers.

MILLER.

The Practice of Obstetrics, by American Authors, Edited by CHARLES JEWETT, M. D., Third Edition, Revised and Enlarged. Illustrated with 484 engravings, 46 of which are in colors, and 36 colored plates. Lea Bros. & Co., 1907.

This last edition of Dr. Jewett's book consists of contributions from eighteen representative teachers and authors of the United States and presents clearly and concisely the principles and practice of obstetrics in accordance with a simple and rational plan suited alike to the needs of student and practitioner.

Those who had occasion to review the previous editions will find that extensive revisions have been made, new illustrations introduced and some entirely new chapters added.

The Editor is to be congratulated in his arrangement of the text and his ability to prevent overlapping of subjects, a fault too frequently found when several contributors furnish the subject matter. Throughout the book is seen the evidence of Dr. Jewett's constant attempt to be clear, yet concise, to give valuable detail without introducing too much theory.

A valuable addition to the new edition are the chapters by Dr. W. S. Stone, covering the subjects of Changes in the Maternal Organism Caused by Pregnancy. The Hygiene and Management of Pregnancy and the Diseases of Pregnancy. It has been interesting to watch the growth of these chapters in various modern text books on obstetrics. The interest being taken in ante-natal pathology, diseases of pregnancy, the pathology of eclampsia and the toxemias has caused these chapters to grow from a few lines to almost a volume.

The work is the result of the combined efforts of experienced surgeons, gynecologists, obstetricians and pathologists and can be accepted as was the previous edition, as a modern text-book of the first rank. MILLER.

Materia Medica, Pharmacy, Pharmacology and Therapeutics, by REYNOLD WEBB WILCOX, M. A., M. D. L. L. D. Seventh Edition, Revised, Philadelphia. P. Blakiston's Son & Co., 1907.

The present edition of this work is divided into two volumes, the first embracing *Materia Medica and Pharmacy*, the second, *Pharmacology and Therapeutics*.

We have reviewed several former editions of this work in the pages of the Journal, and to our previous commendatory remarks we are pleased to add that, in the present edition, the author has well maintained his reputation as a writer and teacher on the subjects here treated. STORCK.

Diseases of the Stomach, by DR. J. BOAS, English-American Edition from the latest German Edition, by ALBERT BERNHEIM, M. D. Philadelphia, F. A. Davis Company.

The chapter on examination is replete with valuable information. The personality of the author is plainly evident throughout this section of the book. Boas' treatment of gastric disorders is, for the most part, rational and conservative, and the practitioner will find his work a safe guide to follow. The index is not so complete as we would wish. This is too often the case in translations from the German and we think more care should be exercised in this regard when the next edition is issued.

The work as a whole merits praise, and is a valuable contribution to our many good works on medicine which have been translated from the German. STORCK.

Progressive Medicine, Vol. IX. No. 4. Whole number 36. December 1, 1907.

We have never yet found a dull number of this quarterly, and the present number is one of considerable interest.

Among the contributors to this volume, we notice the names of Drs. William T. Belfield, Joseph C. Bloodgood, John Rose Bradford, H. R. M. Landis and J. Dutton Steele.

The chapter on the diseases of the digestive tract is worth a careful perusal, containing as it does excerpts of some excellent articles.

Intolerance of fats, by Edsall, will strike many who have had similar experience; and they will appreciate the value of Edsall's article, in which he points out the fact that the trouble is due to faulty metabolism and not digestion.

A new reaction for free hydrochloric acid is given. It consists of a pure, dried pulverized resin of guaiac dissolved in 5 c. c., of the following mixture:

Spiritus	10.
Alcoholis	40....

The solution of guaiac must be freshly prepared each time the test is to be applied. We have used this test and have found it fairly sensitive when fresh, but can discover no advantage which it possesses over the older and well-established Gunzburg test.

As the space for a review of this kind is necessarily limited, we must ask a personal reading of the many good articles in this volume.

STORCK.

Publications Received.

WM. WOOD & CO., New York, 1908.

The Principles and Practice of Hydrotherapy, by SIMON BARUCH, M. D.
Third Edition, Revised and Enlarged.

P. BLAKISTON'S SON & CO., Philadelphia, 1908.

A Manual of the Practice of Medicine, by FREDERICK TAYLOR, M. D., F. R. C. P. Eighth Edition.

LEA AND FEBIGER, Philadelphia and New York, 1908.

Progress Medicine: Hare-Landis, Vol. X. No. 2. June 1, 1908.

G. P. PUTNAM'S SONS, New York, 1908.

Heredity, by J. ARTHUR THOMPSON, M. A.

REBMAN CO., New York, 1908.

The Sexual Question, by AUGUST FOREL, M. D., Ph. D., L. L. D. English
Adaptation by C. F. MARSHALL, M. D., F. R. C. S.

J. B. LIPPINCOTT CO., Philadelphia and London, 1908.

Right-handedness and Left-handedness, by GEORGE M. GOULD, M. D.

Why Worry? By GEORGE LINCOLN WALTON, M. D.

W. T. KEENER & CO., 1908.

Diseases of the Nervous System, by H. CAMPBELL THOMPSON, M. D. F. R. C. P.

Electrical Treatment, by WILFRED HARRIS, M. D., F. R. C. P.

MISCELLANEOUS.

The Waters-Pierce Case in Texas: Compiled from the Series of Press Articles entitled "*Battling With a Great Corporation*," by FREDERICK UPHAM ADAMS. Skinner & Kennedy, St. Louis.

The Bacteriology of Diphtheria, Edited by G. H. F. NUTTAL, M. D., (Cambridge) at the University Press, 1908.

Headache Caused by Pathologic Conditions of the Nose and its Accessory Sinuses, by GERHARD H. COCKS, M. D. and JOHN E. MACKENTY, M. D. (Reprint).

Transactions of the American Pediatric Society. Nineteenth Session, May 7, 8, and 9, 1907. Vol. XIX. Edited by LINNAEUS EDFORD LA FETRA, M. D. (DR. S. S. ADAMS, Secretary, Washington, D. C.).

First Annual Report of the Commissioners of Health of the Commonwealth of Pennsylvania SAMUEL G. DIXON, M. D., Commissioner. Harrisonburg, Pa., 1908.

Subcutaneous Hydrocarbon Prothesis, by F. STRANGE, KOLLE, M. D. (The Grafton Press, N. Y.).

U. S. Department of Agriculture. *Forest Service; Circular 139*. GIFFORD PINCHOT, Forester. *A Primer of Wood Preservation*, by W. F. SHERFESSEE, Forest Assistant. (Government Printing Office, Washington, D. C., 1908).

Pulp and Paper Investigation Hearings. Preliminary Report No. 25. (Government Printing Office, Washington, D. C., 1908).

Cosmetic Surgery. The Correction of Featural Imperfections, by Charles C. Miller, M. D. 2nd Edition. Enlarged. (Published by the Author.)

To Panama and Back, by Henry T. Byford, M. D. (Published by the Author.)

Department of Commerce and Labor. *Bureau of the Census*. S. N. D. North, Director. *Mortality Statistics, 1906. Seventh Annual Report*. (Government Printing Office, Washington, D. C.)

Reprints.

Midwifery—Woman's Profession, by R. O. Marcour, M. D.

The Recognition and Management of Acute Mastoiditis by the General Practitioner, by Laertus Connor, A. B., M. D.

Mind Sound and Unsound, by F. W. Langdon, M. D.

The Relation of Government to the Practice of Christian Science, by Alfred Farlow.

Metastases Following Incision of a Sarcoma; (2) Some Phases of the Surgical Treatment of Cancer: A Clinical Lecture, by William Seaman Bainbridge, M. D.

Animal Experimentation in Scientific Research, by Clark Bell, Esq., LL. D.

Legislation on Vivisection, by Dr. J. Mount Bleyer.

Some of Humanity's Debts to Vivisection, by DR. R. M. SHUFFELDT.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR MAY, 1908.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	6	4	10
Intermittent Fever (Malarial Cachexia)	3	3	6
Smallpox.....			
Measles			
Scarlet Fever.....	6	1	7
Whooping Cough.....	2		2
Diphtheria and Croup.....	1		1
Influenza			
Cholera Nostras.....	1	1	2
Pyemia and Septicemia	3	2	5
Tuberculosis.....	39	41	80
Cancer.....	20	11	31
Rheumatism and Gout	1	2	3
Diabetes	2		2
Alcoholism			
Encephalitis and Meningitis.....	14	2	16
Locomotor Ataxia.....	1	1	2
Congestion, Hemorrhage and Softening of Brain.....	18	7	25
Paralysis	2	1	3
Convulsions of Infants	3	1	4
Other Diseases of Infancy	19	8	27
Tetanus	1	4	5
Other Nervous Diseases			
Heart Diseases.....	48	28	76
Bronchitis	5	1	6
Pneumonia and Broncho-Pneumonia.....	19	21	40
Other Respiratory Diseases	2		2
Ulcer of Stomach.....		1	1
Other Diseases of the Stomach	8	1	9
Diarrhea, Dysentery and Enteritis.....	74	49	123
Hernia, Intestinal Obstruction.....	1	1	2
Cirrhosis of Liver.....	8	8	16
Other Diseases of the Liver	4	2	6
Simple Peritonitis	3		3
Appendicitis.....	2	1	3
Bright's Disease	29	14	43
Other Genito-Urinary Diseases.....		2	2
Puerperal Diseases	7	4	11
Senile Debility.....	15	8	23
Suicide	5	2	7
Injuries.....	20	17	37
All Other Causes.....	25	16	41
TOTAL.....	417	265	682

Still-born Children—White, 19; colored, 14; total, 33.

Population of City (estimated)—White, 258,000; colored, 93,000: total, 351,000.

Death Rate per 1000 per annum for Month—White, 19.39; colored, 34.19; total, 23.31.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 29.97
Mean temperature 76.
Total precipitation 4.77 inches.
Prevailing direction of wind, southeast.

New Orleans Medical and Surgical Journal.

VOL. LXI.

AUGUST, 1908.

No. 2

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Report of A Case of Fecal Obstruction of the Small Intestine ; with an Additional Plea for the Earlier Recognition and Treatment of Intestinal Obstruction.

By ESPY WILLIAMS, M. D., Patterson, La.

In the operation upon the case here given notice it seems to me that, insofar as my recollection might be trusted, obstruction of the bowel by fecal masses, while occurring with a not very great infrequency in the colon, was but rarely met with in the small gut. A careful search of current medical literature from January, 1905, to this date, helped to bear out this supposition. Among the great numbers of case reports of mechanical ileus, through all possible causes, it would seem, published within that period, no case of obstruction incited in this particular manner was found. Dr. Richard Douglas, deceased, of universally acknowledged wide experience in the surgery of the abdominal cavity, both in himself personally and in his close acquaintance with the work of others, said, in his work on "Surgical Diseases of the Abdomen," that

"This (fecal impaction) is not found in the small intestine, as this form of obstruction involves usually the colon only." Other text books consulted refer only to colonic obstruction by fecal matter.

This rarity is, in fact, not hard to account for, bearing in mind the normal physiology of the small intestine from end to end. Functionally in its longest area a surface provided for the absorption of digested foods, the contents of the small intestine are normally in a state of constant fluidity as far onward as its cecal extremity. The large intestine itself, while without digestive function, has its duty as an absorber of a large part of that quantity of fluid poured out by the small gut during the passage through it of digestive end products. The largest part of this surplus fluid is absorbed within the cecum, but the process continues also throughout the ascending and transverse divisions of the colon. Howell ("Text Book of Physiology," pp. 717-718) says, "When the contents of the small intestine pass the valve they still contain a certain amount of food material." * * * "An interesting feature in the large intestine is the marked absorption of water. In the small intestine no doubt water is absorbed in large quantities, but its loss is evidently made good by osmosis or secretion of water into the intestine, since the contents at the ileocecal valve are quite a fluid as at the pylorus. In the large intestine the absorption of water is not compensated by a secretion; the material becomes more and more solid as it approaches the rectum, and is thus formed into the feces." The storage function of the large intestine begins at the splenic flexure. This statement is not intended to convey the idea that fecal impaction occurs only ever at that division of the intestine last mentioned. Such, however, is the case primarily. When hardened masses of feces are found lodged in the transverse or ascending colons or cecum, it is only as a sequence (provided the small bowel has properly performed its "osmosis or secretion" of fluid) to the damming back of this matter upon these parts of the bowel after impaction of the rectum and colon descendens has taken place. Cases of this sort we note from time to time, but careful inquiry has always elicited the fact that lavage had previously been practiced with, what the patient considered as, good result.

As so frequently happens in the "curiosities" of medicine, their

uncommonness may be easily accounted for; their event hard to explain. This uncertainty obtains with me in the following case.

A. M., white male, aged 11 years; was referred to my colleague, Dr. W. D. Roussel, by Dr. J. C. Berwick, of Berwick, La.; and by the former to myself. Admitted to Infirmary, April 2, 1908. Diagnosis of intestinal obstruction had been made by Dr. Berwick.

Past history negative. The boy had always been healthy and strong, though never robust. No intestinal trouble had ever previously existed. Bowels had been regular until March 20, two days prior to onset of present trouble.

On March 22, patient was seized with abdominal pain and violent vomiting, associated with great prostration. He was at once taken to Morgan City, where a local physician was consulted, who prescribed purgatives, calomel and castor oil. This was without avail. He was visited several times and attempts at elimination continued. Vomiting persisted and the condition grew gradually worse, until the fourth day after onset, when he had, after colon washing, several large actions (handfuls, the father described them as,) after which he became somewhat more comfortable. A recurrence of pain and vomiting took place on the following day (fifth after onset) attended with much more prostration than in the first instance. Purgatives and lavage were again resorted to but without result, the condition growing steadily worse until the 10th day, when Dr. Berwick was called in attendance. The Doctor stated that at this time the patient appeared to be in extremis, his condition being so bad that it was feared that an attempt to remove him would be disastrous. Large clysters were administered at frequent intervals, together with bold stimulation. Rallying upon this treatment he was brought here April 2, arriving by boat at 5:30 p. m.

The condition at this time, as follows: Emaciation marked. Facies of prolonged starvation, pain and collapse, indicative of some grave intra-abdominal lesion. Temperature 99 4-5, pulse 110, respiration 24 and thoracic in type. The thighs are flexed slightly upon the abdomen. There is now no decided vomiting, but occasional regurgitation of dark fluid, not stercoraceous. The belly is slightly distended. A few coils of small intestine can be seen outlined within the central portion of the abdominal surface.

There is neither visible nor audible peristalsis. There is now no subjective sensation of pain, but slight tenderness is present over the entire abdomen, though most marked in the right lower quadrant. No tumor can be made out by palpation. No rectal examination is made, no movement of bowels has occurred for six days. Flatus has been occasionally passed, but not during the past two days.

Operation 6:30 p. m. Ether anesthesia; assisted by Drs. Roussel and Berwick. Lateral incision, through right rectus. Upon entering the cavity, purple, distended coils of small intestine presented in the wound. There was no fluid in the cavity. Without any trouble whatsoever, a hard, irregular mass was found lying deep within the pelvic cavity on the right side, which, when delivered, was found to be a concretion lodged within the lumen of the small bowel. Enterotomy was done, delivery of the mass was rapidly made and the incision in the gut closed. Bowel was dropped back into the cavity and the abdomen closed without drainage. No attempt was made to locate the position of the mass within the bowel, owing to the necessity for haste. All operative manipulations were completed within fifteen minutes. Patient had taken ether comfortably enough, and was returned to room in fair condition. Lavage of stomach relieved that organ of a large quantity of dark fluid, and no post-operative vomiting occurred.

The subsequent history is that of comparative comfort for a few hours, followed by a rapid rise in temperature and progressive collapse with muttering delirium, death occurring at the expiration of sixteen hours from the time of operation, in spite of all efforts towards relief.

Autopsy at the time of death showed: Dessication of tissues in wound. The peritoneal cavity was dry. No leakage had occurred through wound in bowel, which at this time was found to lie seven inches from the ileo-cecal valve. The proximal portion of the small bowel was in the same condition of distension and discoloration as at the time of operation, this change extending up to the duodeno-jejunal flexure. (Paralytic ileus existed after the removal of the obstruction.)

Death was evidently caused by rapid toxemia incident upon quick absorption permitted by the relief of pressure upon the intestinal absorbents due to the removal of the obstructing mass.

This latter was found to consist entirely of fecal matter, and measured $3\frac{1}{2}$ inches in its shortest and $4\frac{1}{4}$ inches in its longest circumference.

REMARKS: As said, simple enterotomy with immediate closure of wound in gut was made. Fistula was not made for the following reasons; the gut above the obstruction was not excessively distended, appeared to contain but a small amount of fluid, and its peritoneal coat was healthy. There was no evidence of ulceration of the mucosa of that part of the intestine immediately enveloping the mass. While complete obstruction existed, this was not due to the presence of the mass alone, which was not very firmly impacted; but to some extent to the coexisting toxemic paralysis. Lastly, the making of a fistula would have occupied more time than closure of the gut did; and time was of very great importance.

OBSERVATIONS: In the following observations I am fully cognizant of the fact that mine is but one more voice added to the voices of the many, in contending that intestinal obstruction, the most horrible of all intra-abdominal accidents, has a mortality not due entirely to the lesion itself, but in great and even greatest part to the delay in institution of proper treatment. An amelioration of existing conditions in this particular matter must come as has the betterment found in other severe abdominal casualties; through loud and long and many clamorings.

Except in the very youngest of infants or in those profoundly debilitated through previous mischance, the primary shock of obstruction carries with it no fatal end. Death is almost constantly due to the progression of a secondary shock, to toxemia, or, if the given case progress for a sufficient length of time, to peritonitis either by contiguity or continuity.

In those cases in which post-operative death occurs, the end is most often to be attributed to toxemia. The lymphatic and blood-vascular system of the intestine has its absorbing power interfered with during the existence of the obstruction by reason of the pressure exerted by gaseous distension; the resumption of their duties as absorbents subsequent to the removal of the impediment, be it of whatever nature, is more often than not detrimental, so large an amount of offensive material taken up within

a short time that the economy is unable to withstand its toxic effect. The extreme virulence of intestinal ptomaines is known to all; the end result in intestinal obstruction should also be a matter of common knowledge; yet physicians treat intestinal obstruction by medical means through many days, and expect a happy result at the hands of the surgeon upon the simple restoration of the patency of the gut. Never along these lines will mechanical ileus become other than what it is now, the most fatal of all the many dangerous lesions of the abdominal viscera; except it be, perhaps, acute pancreatitis; and this itself is rapidly becoming less fatal, as its greater frequency is recognized.

A review of the history of other serious intra-abdominal lesions reveals the fact that, as in this, death results mainly from processes subsequent to and dependent upon the disease; not as a rule from it in itself. The percentage mortality has been reduced *pari passu* with the aptitude displayed in the making of the diagnosis and the promptitude in treatment instituted. And not wholly even so, for oftentimes our only diagnostic measure, as well as our surest, lies in that treatment which we undertake at other times when no disturbing doubt exists.

Consider appendicitis: Simple operations had been done from time to time for relief of peri-appendicular pus in individuals fortunate enough to have existed sufficiently long for the trouble to have become obvious, even in the ancient history of medicine. In the late fifties Geo. Lewis, of New York, collected and reported 47 cases of appendicitis with death in all but 3. "In 1867 the mortality from the 'Parker Operation' for appendicitis was 47%, while in 1882 the mortality was reduced to 15%." (Kelly and Hurdon, "The Vermiform Appendix and its Diseases.") In which direction shall we look for the cause of this reduction in death rate? Not in the operation itself, for "Parker's Operation" consisted during this entire time of simple evacuation of appendiceal abscess. We credit the difference to the more ready recognition of the disease and its consequent earlier treatment. Appendicitis now is one of the most readily recognizable of all intra-abdominal diseases; we no longer do the "Parker Operation," as the one of election, and the mortality is almost nil. At the expiration of the duties of his clinic, von Eiselsberg, who needs no introduction

here, climbed upon his operating table and had his assistants remove an appendix which had begun to trouble him but a few minutes before.

Gall stone disease and diseases of the gall bladder, present day subjects of great importance and interest, have practically lost their terrors. Mr. Mayo-Robson, in his monograph on "Diseases of the Gall Bladder and Bile Ducts," says: "If the most complicated cases, such as phlegmonous cholecystitis, gangrene of the gall bladder, suppurative and infective cholangitis * * * be included, the mortality has been 2.7%."

Any surgical or medical text book of, say, three years of age, will give the mortality of general peritonitis as practically 10-%. At the 19th meeting of the American Association of Obstetricians and Gynecologists, Murphy reported 36 consecutive cases of general suppurative peritonitis from perforation with one death ("*Surgery, Gynecology and Obstetrics*," November, 1906.) Murphy's technic is here undoubtedly responsible for the largest share in the good result, but who will doubt that the earlier recognition of the cause leading to the diagnosis, and the knowledge of the futility of medical treatment, have their proper share. All of us have been working lustily to sharpen our wits sufficiently to enable us to make prompt diagnosis of perforation in typhoid fever, in order that the patient may be given, in surgical intervention, his one chance for life.

A most apt comparison to intestinal obstruction as it is here considered, is that of strangulated intestinal hernia. In this complication of hernia is found all of the conditions present in intestinal occlusion from any other cause, and yet the mortality by comparison is exceedingly low. This difference is obviously due to the fact that strangulated hernia is practically self-evident to any observer; and let that observer be for the most part without the "surgical sense," the knowledge that immediate surgical relief is imperative is second nature to him. The mortality of strangulated hernia is estimated at 8.5% if the intestine be not gangrenous. The death rate in intestinal obstruction is variously stated at from 12.50% to 70%. In statistics compiled by Rushmore, on intussusception (*Annals of Surgery*, vol. 46, p. 221,)

a most pointed demonstration of the disastrous effects of delayed surgical intervention in this emergency is given:

	Recov'd.	Died.	Mortality.
Cases seen in first 12 hours.....112	98	14	12.50
Cases seen in second 12 hours...136	82	54	39.70
Cases seen after 24 hours..... 53	22	31	68.70
	<hr/> 301	<hr/> 202	<hr/> 99
			<hr/> 32.22

This is a lower *average* mortality than is usually found, but at the same time no better demonstration of the fact that the chances for life in these patients is measured in minutes, can be had than in the above table.

In 100 cases of intestinal obstruction operated upon and reported by P. B. Clubbe (*British Medical Journal*, June 17, '05.) the aggregate mortality was 50.6%.

Statistics presented by J. C. Bloodgood at the 131st annual meeting of the Medical Society of the State of New York, showed that the mortality in operations done after 48 hours was 70%; in operations done within 24 hours the mortality was 30%. These figures agree closely with those of Rushmore, given above.

Dr. H. O. Walker, at the 1906 meeting of the Mississippi Valley Medical Association, reported 11 cases of intestinal obstruction with 45.5% mortality; "A much better record," he says, "than is usually obtained."

To return to the comparison with strangulated hernia: Bruns and Hofmeister (von Bergmann's Surgery) reported 64 herniotomies with a total mortality of 22%. In this series there were 25 cases in which the bowel was gangrenous. The cases of gangrenous intestine alone (*Ibid*) 398 in all, gave a mortality under operation of 52.9%. Compare the few figures here given and it appears that in all cases of intestinal obstruction, where the cause lies out of sight and within the cavity itself, *the mortality equals, and even exceeds, that of strangulated hernia with gangrenous intestine*. It is hard to understand why physicians will submit cases of strangulated hernia to immediate operation when, in an occlusion within the cavity, in which all of the symptoms and signs are present as in the first, saving the mass itself, such treatment is deferred and more than half the cases are lost. Surely it cannot be gainsaid, that in no one other surgical disease of the abdomen

is Moynihan's "mortality of delay" so heavily to be accredited with the loss of life.

Having presented these few items of interest regarding the high mortality attending intestinal obstruction, the mention of some opinions as to the ways and means whereby better results may be obtained in its management is necessarily in order.

Miles F. Porter says (abstract of article in *Journal, A. M. A.*, vol. 47, p. 1219): "This large mortality is due in no small measure to the advice given by many authors to delay operation until a fair trial of medical treatment, massage, etc., has failed. The mortality might be reduced to 5% by prompt surgical interference."

"After the diagnosis of ileus has been made the adoption of treatment other than surgical, with the hope that it may effect a cure, is utterly unjustifiable, and delay based on the hope of spontaneous recovery is absolutely criminal." (Lewis C. Morris, *Journal, A. M. A.*, Oct. 14, 1905.)

In the words of Morris Richardson: "We should assume that in all acute abdominal emergencies the gravest, rather than the mildest, danger threatens; that the most, rather than the least, effective methods should in the first instance be selected, even if there be greater danger in the application of the former."

These are but a few of many similar expressions from men whose opinions are of great weight; they can be added to by anyone sufficiently interested to look over the literature upon the subject.

The matter of the different methods of surgical relief advocated has not its proper place here. In so far, however, as this treatment is concerned, I would say that there is no practitioner who may, under any circumstances, excuse a failure to resort to surgery. The technic is relatively simple in its application; the earlier the time of operation the simpler the character of the work to be done. If the physician does not care to operate himself, either by a knowledge of a possible inability or through natural disinclination, there are hospitals and well-qualified surgeons within easy reach everywhere.

To conclude with the diagnosis, upon which as a foundation rests so much of the whole, I submit that it is my belief that the large majority of physicians expect to find a symptom-complex of too definite and decided a character. As an instance of this, text books lay great stress upon the sign, fecal vomiting. In a num-

ber of case histories that I have looked over with the express purpose of satisfying myself as to the generally conceived importance of this sign, I have found the greatest attention paid to it, either positively or negatively. There is no argument in its favor whatever, if we are to aim to make an early diagnosis of the lesion. It is not a sign invariably present by any means, even in the most aggravated case; it is occasionally quite difficult to decide whether the vomitus is really or only apparently stercoraceous; and when actually and without a doubt present, in making a sure diagnosis it carries with an almost unfailing regularity its significance of an unhappy end. The other customarily looked-for signs must be judged according to their worth. A perfect coalition of them will seldom be found sufficiently early for benefit to accrue to the patient.

The marked advance in the surgery of the abdomen as a life saver is due, to be sure, to constant progress towards perfection in the mechanical art of surgery; but it can not be contended otherwise than that the astounding decrease in the death rates of all of the most violent of intra-abdominal diseases and accidents is due in the main to the broadening of the field within which indicative symptoms and signs are searched for, with less tendency to expect and search for classical symptoms and signs in any. As we no longer await the formation of abscess or the supervention of intense icterus with classical biliary colic in gall stone disease; nor of hematemesis or perforation in gastric ulcer; so should it be our aim to make our diagnosis *without* those signs and symptoms which make that diagnosis beyond cavil. It is only by watching the, perhaps seemingly, insignificant details, that the best results may in the end be obtained; and I submit in very brief conclusion that any case in which abdominal pain resists the mildest opiate, and in which vomiting and constipation exist after from six to ten hours of mild, though conscientious, effort at relief, should be subjected to surgical intervention. A small percentage of these operations will undoubtedly prove to be but exploratory, but the opening of the abdomen, in good hands and under proper surroundings, carries with it no danger; and many lives will be saved thereby which, by a conscientious procrastination, will be lost.

Headache of Nasal Origin.*

By ARTHUR I. WEIL, M. D., New Orleans.

Headache, one of the common ills that human flesh is heir to, though usually regarded merely as a trifling annoyance rather than as a symptom of any great clinical significance, may nevertheless on the one hand by its severity, by its frequent and repeated recurrence or by its interference with the normal functional activity of the mind and body, so materially interfere with the enjoyment of life and the pursuit of business, or on the other hand it may in certain cases point so directly to some grave organic or functional disease that its source is always well worthy of investigation. The cause is found in the majority of cases in stomachic or intestinal disturbance, in kidney disease or in cerebral disturbance—organic or functional. Eye strain or ocular muscle abnormalities are likewise a fruitful source. Apart from these causes, however, there are a large number of headaches of undeniable nasal origin, whose cause can never be ascertained nor can they be cured except by proper nasal examination and treatment.

Fortunately, the profession, after a long skepticism, is gradually coming to recognize and appreciate this fact. Too long have the unfortunate victims of so-called nervous headache been driven from pillar to post, from hope to despair. The water cure, the electro-therapeutist, the mud bath, all have been tried in the vain effort to procure relief from years of suffering until in the end, the removal of a turbinate, the sawing off of a septal spur, the proper drainage of a pus filled cavity, has worked the miracle. That true nervous headaches do exist is doubtless a fact, but no such diagnosis should ever be made and no headache should be declared functional until a careful examination of the nose and its cavities have proven them to be normal.

A brief review of the principal nasal causes of headache, even though somewhat technical and correspondingly dry and uninteresting to the general practitioner, should be of value especially to him as emphasizing and recalling to his memory the important place occupied by the nose in the etiology of headaches. The laity and many physicians have long believed that nasal obstruction and sinus inflammation produce pain and symptoms referred directly to

*Read at meeting of Orleans Parish Medical Society, May 9, 1908.

the nasal and accessory cavities. Such is not the case. The most variegated symptom complex of headache, neuralgia and far-reaching reflex neuroses have their origin often in the nose and spread thence throughout the head and face and to distant organs without any pain or discomfort being referred to the nose itself.

A short resume of the anatomy of the trigeminal nerve, calling attention to its wide distribution and the free anastomoses between its various branches, especially of the first and second divisions, will readily explain how pressure or other abnormalities within the nose can give rise to so varied a symptomatology. The first division of the fifth nerve gives off three branches—nasal, frontal and lachrymal. The lachrymal supplies the gland of that name, while the frontal through its external or supra-orbital branch sends twigs to the upper lid and side of the face, the forehead and scalp as far back as the occiput. The nasal divides into several orbital and nasal branches; the orbital supplying the ciliary muscle of the eye through the long and short ciliary nerves, and sending some of the branches to the lachrymal gland, the inner part of the upper lid and the skin between the eyes. The nasal branch runs obliquely inward, lying on the cribriform plate of the ethmoid beneath the olfactory bulb, where it gives off some branches to the dura mater; it then passes into the nasal fossa and breaks into internal and external branches, the internal, supplying part of the mucous membrane of the anterior half of the septum, while the external gives some small branches to the anterior part of the external wall of the nose, leaves the nasal cavity between the nasal bone and the cartilage, which it also supplies and is distributed in the skin of the nose. The second or superior maxillary branch of the fifth nerve, emerging from the gasserian ganglion, passes through the sphenomaxillary fossa, giving off two or more small branches to the sphenomaxillary or Meckle's ganglion, which lies just beneath it in this fossa, an orbital branch which anastomoses with the lachrymal from the ophthalmic or first division of this nerve, several dental branches and finally, after emerging on to the face through the infraorbital canal as the infraorbital nerve, is distributed to the front and side of the face. It is from Meckle's ganglion, that we derive our nerve supply for the middle and inferior turbinate and large part of the septum through direct branches and branches of naso-palatine nerve. The accessory cavities are similarly supplied

by twigs from the fifth nerve. Through Meckle's ganglion and the Vidian nerve the nose derives its motor enervation from the facial nerve and is connected with the carotid plexus of the sympathetic system. We can readily understand then how pressure or irritation within the nose can through the widespread ramifications of the trigeminal nerve, cause pain in varied and remote regions.

Diseases of the nose, which give rise to headaches, may be divided into three distinct groups. 1st. Those which cause obstruction to nasal respiration resulting in mouth breathing, especially at night, impaired oxygenation, etc.; to this class belong chiefly turgescence and moderate hypertrophy of the turbinates, especially the inferior and certain polyps, which hang down from the middle meatus and obstruct the air passage. 2d. Deformities or disease, which cause pressure within the nose, such as hypertrophied middle turbinates, large spurs of the septum and the like; and 3d. Acute or chronic catarrh or suppuration of the nasal mucous membrane of the accessory cavities, for example, acute coryza and acute sinusitis. The pain is to be attributed usually to one of five causes:

(1) Pressure of the hypertrophied or swollen part upon the septum or upon each other, especially the middle turbinate against the septum.

(2) Hyperesthesia of the mucous membrane.

(3) Acute congestion or inflammation of the Schneiderian membrane.

(4) Retention of pus under pressure.

(5) Disturbance of the blood and lymphatic circulation at the base of the skull; this latter applies especially to adenoids and lies outside the scope of the present paper.

In taking up more in detail some of the diseases and describing broadly the type of headache, which characterizes each, it may be well to call attention to the fact that these types are by no means invariable, only in a general way can the association between a certain form of headache and a certain nasal condition be accepted, for occasionally almost any form of headache may be ascribed to each separate morbid condition. With this reservation, we may proceed to consider individual diseases.

ACUTE RHINITIS OR CORYZA: We are all familiar with the headache and discomfort which often accompanies an ordinary cold in the head. A pain, which in some cases may be a little more than a

sense of weight and fullness, but which in others may vary from a dull aching pain across the root of the nose and in the frontal region to one of greatest severity. Sometimes, of course, this pain is due to an accompanying acute sinus inflammation or an acute exacerbation of a chronic sinusitis, which affections we will consider later, but frequently it occurs without any demonstrable participation of the accessory cavities. In such cases the pain is due to acute congestion and swelling of the mucous membrane, a general hyperesthesia of the parts and extension of the sensitiveness along the various nerve branches, which have their termination in the nose.

Jurasz reports a case which belongs in this group of acute croupous rhinitis in which headache was a prominent symptom. This disease, according to him, is not to be confounded with nasal diphtheria, but is a distinct entity in itself. Nasal diphtheria itself, however, is not infrequently associated with headache.

CHRONIC RHINITIS occurs in four distinct forms: (1) Chronic diffuse rhinitis; (2) hypertrophic rhinitis; (3) atrophic rhinitis; (4) ozena; each of which gives rise to headache. Chronic diffuse rhinitis, characterized by diffuse swelling and redness of the mucous membrane, with a watery or more or less purulent discharge, which dries easily into crusts or scales, is not a frequent source of headache. Jurasz made careful statistics of all the patients, who consulted his clinic during eight years, noting the frequency of the various symptoms. He found headache present in 11.5% of the cases of diffuse rhinitis. The headache is inconstant in character, sometimes neuralgic, sometimes more a feeling of pressure. It is not usually a prominent symptom.

In chronic hypertrophic rhinitis on the other hand, next to the impaired nasal respiration, headache is one of the commonest symptoms occurring, according to Jurasz, is nearly 22% of all cases. Although among his patients it was relatively more frequent in inferior than in middle turbinate hypertrophy, the percentages being, respectively, 24.7% and 13.4%. In my experience the reverse has been the case; middle turbinate hypertrophy being a more frequent cause of headache. This is indeed only what we would expect when we recall for a moment the position and normal variations in the conformity of the middle turbinate. Occasionally curled up on itself, lying close to the bulla ethmoidalis and the ethmoid cells, it

leaves so large a passage between itself and the septum that even large hypertrophies give rise to only slight discomfort. More frequently, however, it extends out obliquely towards the septum or is crescentic in form, so that between its upper or outer surface and the septum there is little space. In this position, which is the usual one, it is plain that a very slight hypertrophy would crowd the turbinate up against the septum, making it difficult often to introduce even a small probe between them. That this pressure does cause the headache may be easily demonstrated by shrinking up the tissues with cocaine and adrenalin and noting an immediate cessation of the pain. The pain may consist of a sense of tightness across the bridge of the nose, pressure in the region of the eye and frontal sinus, pain radiating from the bridge of the nose down or up towards the infraorbital or supraorbital canals and over the region of distribution of these nerves, pain shooting upward over the forehead and scalp as far back as the occiput. Lachrymation is also not an infrequent symptom. It is this class of nasal diseases more than any other which give rise to those severe headaches and neuralgias, continuing at intervals for years. The oculist, especially, is consulted by many of these sufferers, for a refractive error is often suspected and sought for. Failing in this the patient seeks relief by all sorts of cures before the nose is thought of as a possible source of the trouble. Nor indeed, is this surprising, since there are no symptoms referred to the nose, no occlusion, no discharge, and it is frequently only by chance that the hypertrophied middle turbinate is discovered. I can recall several cases where the patient consulted me for some entirely foreign condition, for example, acute otitis, or chronic pharyngitis; the turbinal hypertrophy was discovered during the course of the examination and by its removal a severe intermittent headache of years' duration was cured.

ATROPHIC RHINITIS is not commonly accompanied by headache. Jurasz found it in about 11% of the cases. When present it is not severe, manifesting itself usually as a pressure or dull aching pain over the forehead. Ozena, although likewise not a frequent source of headache, being present in about 13% of the cases, gives rise, as a rule, to several forms, such as true infraorbital or supraorbital neuralgia, migraine or marked pressure in the region of the forehead and temples.

DEFORMITIES OF THE SEPTUM: Spurs of the septum frequently

cause little or no discomfort. Only when very large or when associated with hypertrophy of the turbinates, so that they press against these bones, sometimes making a distinct furrow in the softer tissues covering the turbinates, do they cause headaches. In these cases, the pain, which may be very severe, has the ordinary characteristics of pressure headaches from the nose causing various neuralgias, a feeling of constriction in the head, sometimes as if a constricting cord were bound tightly around the forehead. Deviations of the septum on the other hand, especially when they include the upper and anterior part of the septum, are commonly associated with headache. The headache is often severe and constant, sometimes persisting day and night and interfering materially with sleep. It may take the form of hemicrania or it may give rise to neuralgia.

HYPERESTHESIA: Occasionally, in examining the nose with the probe, we find several spots sometimes on the septum, sometimes in the middle of the turbinate region, which are extremely sensitive to the touch. The slightest manipulation causes severe pain in the nose, which shoots up into the head. Such spots of hyperesthesia are naturally not an infrequent source of headache, which can be permanently cured by thoroughly cauterizing these areas. Moritz Schmidt calls especial attention to such cases.

SYPHILIS: One of the commonest symptoms of syphilis always prominently mentioned is headache. I am convinced that a certain proportion of these headaches is of nasal origin. Tertiary syphilis occurs in the nose as elsewhere in one or more of its three well known forms, namely, as a gummatous infiltration, as a deep ulceration, or as a bone necrosis, any of which may cause headache, a gumma by pressure on the surrounding parts, especially upon the turbinates, the necrosis or ulceration by the intense inflammation of the adjacent tissues. The headache is usually diffuse and not so very severe, although occasionally there may be intense pain. It is commonly worse at night, as is usually the case with syphilis headache, and in this respect it differs from the ordinary nasal headache, which is, as a rule, most marked during the day, especially in the morning hours.

POLYPS cause headache either by pressure or by interference with proper nasal respiration. In either cases the character of the pain

may be deduced from the situation, the size and the character of the growth.

RHINOLITHS AND FOREIGN BODIES: Rhinoliths give rise to pain only when they have attained a sufficient size to cause pressure on the surrounding tissues. Foreign bodies cause pain either by pressure or by irritation and inflammation of the mucous membrane. Of the former class those are of chief importance which swell up from the moisture of the nose, thus a pea or bean when first introduced into the nose causes little discomfort for several hours until from the moisture it swells sometimes to double its size and exerts considerable pressure. It may then occasion great pain. Those which cause irritation or trauma are chiefly sharp or rough objects or those which have been in the nose a long time. I recall one case where a bullet had remained for ten years in a man's nose, entirely without his knowledge. He had been shot in the jaw and the bullet was supposed to have passed out through his mouth. Coming to the clinic ten years later on account of headache, which had troubled him for several years, the bullet was discovered in the nose and easily extracted, with complete cessation of pain.

NEOPLASMS in the nose, when they attain sufficient size, cause severe headache. This is the result of pressure, which is sometimes great enough to cause necrosis of the membrane cartilage or bone accompanied, of course, by excruciating pain. Usually, however, they are diagnosed before headache becomes a prominent symptom.

DISEASES OF THE ACCESSORY CAVITIES: This is by far the most common nasal cause of headache. Though not invariably present, it is a prominent symptom, sometimes the only symptom in the large majority of cases. The headache is extremely varied in character. There may be periods of complete cessation, periods of dull ache, a sensation of pressure and discomfort in one another region of the head without any definite pain, alternating with periods of very acute headache chiefly of the neuralgic type, which may be maddening in severity. The most characteristic feature of the headache, especially in the chronic forms of disease, is its periodicity. This is ascribed by Hajek to two causes: 1st. A chronic empyema runs its course usually painlessly, or at any rate without severe pain, but exacerbations, which are of frequent occurrence, appearing with every cold in the head and often without any known cause present then all the symptoms of an acute inflammation, the

most prominent subjective manifestation being severe neuralgic pain, or, if there is no exacerbation, there may be temporary occlusion of the ducts or openings of the cavities, be it by hypertrophy, by polyp or by congestion and swelling of the mucous membrane, which causes a retention of pus under pressure with its consequent train of symptoms. 2nd. Otherwise painless empyema may be made painful by some physical or mental strain, by prolonged work or concentration, by excitement and oftentimes by the even moderate use of alcohol and tobacco. It frequently happens that a sufferer from chronic disease of the cavities voluntarily abstains from these stimulants, having discovered for himself that their use tends to aggravate his symptoms.

Headache from empyema, like that from other nasal causes, may be diffuse neuralgia and possibly hemicranial. Diffuse headache is the type found as a rule in the chronic forms. It is commonly a dull ache, localized uncertainly in the forehead, the vault of the skull or the occipital region. There is often absence of pain in the maxillary region, even when the antrum is the sole seat of chronic inflammation, the pain being a dull diffuse headache in other parts of the head.

Neuralgic headache, on the other hand, is the common companion of acute sinusitis, or acute exacerbations. In this stage the pains usually remain much closer to their seat of origin, the antrum causing severe infraorbital neuralgia alone or extending over the other branches of the fifth nerve, especially the supraorbital and dental branches. Acute frontal sinus affections are almost invariably associated with supraorbital neuralgia. It is worthy of passing mention that these sinus neuralgias, coming on us as they do so often after an attack of influenza, are much relieved subjectively, though without improvement of the sinus condition, by the use of antipyrin and similar antineuralgics. In consequence, many physicians regard them simply as a post-grippal neuralgia without considering the possibility of sinus involvement. Hajek, in his large experience, has never seen a case of trigeminal neuralgia following grippe which was not caused by acute inflammation of one of the accessory cavities. This may be a somewhat exaggerated view, but when we consider the peculiar tendency of the influenza bacillus to cause mastoid and sinus suppuration, pain of neuralgic character following an influenza infection should certainly be viewed with

suspicion and investigated before the diagnosis of simple neuralgia is made.

ANTRUM DISEASE frequently runs its course without much pain. Hajek always noted great pain in two classes of cases: (1) Acute empyema of dental origin where the antrum suppuration was preceded by severe periostitis of the alveolar process of the upper jaw. (2) Acute empyema following influenza or erysipelas. The pain can reveal itself as a constant dull sensation of pressure or at certain times of day simulate a true neuralgia of great intensity in the region of the infraorbital nerve, sometimes extending to the supraorbital and in rare cases being limited to this branch. Neuralgia of the dental nerves is also of frequent occurrence or a feeling of prolongation of the teeth on the affected side. Chronic antrum diseases as a rule cause little or no pain. When present it is more a feeling of pressure and discomfort in the region of the upper jaw.

FRONTAL SINUS: Whereas in inflammation of the antrum severe pain is the exception except in the acute or exacerbative stage, in frontal sinus affection it is the rule. The location and shape of the sinus, the smallness of its canal for drainage, the frequent occurrence of hypertrophy of the middle turbinate, of polyps in the middle meatus or other abnormalities in what Ballenger calls the "Vicious circle of the nose," which obstruct the hiatus semilunaris and the infundibulum and interfere with the drainage of all three cavities which have their openings here, but more especially from anatomical causes with the duct of the frontal sinus, explains this fact. For the same reason it is especially the frontal sinus headaches that are much intensified with each recurring attack of coryza. The pain varies from the dull, constant ache of the chronic sinusitis to the intense shooting or throbbing pains of the acute condition. A peculiar feature of this pain is its recurrence at the same time every day. It lasts a few hours, then gradually subsides, only to reappear with equal intensity at the same hour next day. The time when the pain usually occurs is in the morning immediately after rising, and it gradually diminishes so that by noon it has ceased for the day. This peculiar recurring tendency is due to the fact that when the patient is in the recumbent position the pus accumulates in the vault or widest part of the cavity, where the space is comparatively large. On assuming the erect position the

pus gravitates into the funnel-shaped opening of the duct and in the duct itself, where under considerable pressure it not unnaturally causes pain. Then as it gradually trickles out drop by drop into the nose the pressure becomes less and the pains gradually subside. In other cases, though this is less common, the pain may occur periodically at other times of the day.

ETHMOID CELLS: Headache is not a constant symptom of empyema in these cells. The pain when present may be referred to almost any region of the head and may be dull or acute. There is nothing characteristic about the headache.

EMPYEMA OF THE SPHENOID CAVITY: Headache is not always present. When it exists it may be in any part of the head, especially in the temples, the vault or back of the head. Pain in these regions, if accompanied by stiffness of the muscles of the neck, is especially suggestive.

The above, in a general way, are the chief characteristics of headaches which have their origin in the nose.

Just a word in conclusion as to their import. The significance of nasal headache, especially that which originates in one or more of the accessory sinuses, should constantly be in the mind of the physician. When we remember the location of these cavities, their thin walls and their close proximity to various vital structures, the eye being in close relation to the frontal sinus, the ethmoid and the antrum, the brain to the frontal sinus, ethmoid and sphenoid, and the sigmoid sinus to the sphenoid cavity, and when we consider that headache originating from these cavities means suppuration and possibly bone necrosis, we realize that nasal headache may be more than a mere inconvenience, it may be a menace to health and even life itself. Dreyfuss and others have collected numerous cases of death resulting from inflammation in these cavities. There is not time to study in detail these cases. Suffice it to say, that on the one hand, orbital abscess and various destructive processes in the eyeball, on the other, meningitis, brain abscesses and sigmoid sinus thrombosis may be the result of neglected nasal headaches.

A Review of Gastro-Jejunostomy with Report of a Case.*

By DRs. RUSSELL E. STONE and J. D. TUTEN, New Orleans.

In looking over the literature of the operation of gastro-jejunos-
tomy we find the origin and growth of gastric surgery to be of
comparatively recent advent in the domain of surgery, being en-
tirely unknown to the ancients, they believing and teaching that the
corrosive action of the gastric juices prevented healing of wounds
of the stomach.

The first operation in gastric work to be followed by a recovery
was performed by Billroth in 1881, this being a pylorotomy, and
during the same year the first successful gastro-jejunos-
tomy was done by Prof. Wolfler, but it is to Bussenbaur and Von Weinne-
warter that is due the credit of the advent of gastric surgery, they
showing by experiments on dogs that gastric wounds would readily
heal when sutured. This work being five years previous to the
successful work of Billroth and Wolfler.

About twenty years ago the operation of gastro-jejunos-
tomy had a mortality of approximately 40%, which fact is somewhat dif-
ficult for us to realize with our improved methods in vogue at pres-
ent. Mayo Robson shows a mortality of less than 4%; Monyihan's
mortality in 175 consecutive cases is just about 1%, which series
was for chronic gastric ulcer uncomplicated by either hemorrhage
or acute perforation. The Mayos report a mortality in 307 gastro-
jejunos-
tomies of 6%, for non-malignant disease. The records of
Kocher and Murphy, which date back scarcely a decade and just
growing out of its infancy, combined to these reports, plainly show
that the operation of gastro-jejunos-
tomy for non-malignant dis-
ease to be one of the safest operations of major surgery and at-
tended by a mortality of not more than 3%.

The one great bugbear that has attended this operation, and
that we all try our best to overcome, is the complication of regur-
gitant vomiting, which condition is peculiar to gastro-jejunos-
tomy. It was at one time considered to be due to the reflux of bile from
the afferent loop of the jejunum into the stomach, but it is now an
established fact that the presence of bile in the stomach has no
injurious effect, either on digestion or the general health. Regur-
gitant vomiting has been claimed by others to be due to the leaving
of a loop of jejunum between the flexure and the anastomosis, and

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that this loop becoming waterlogged is unable to pass on its contents and by its weight drags down and thereby causing a kinking at the anastomotic site, but the general consensus of opinion at present as to the cause of regurgitant vomiting in gastro-jejunostomy is due to faulty operation and can be overcome by the excision of a portion of the mucous membrane, the application of continuous muco-mucous sutures, the careful anchoring of the anastomosed loop to the stomach and the overcoming of the simple constipation that is ever present in these patients.

In the limited number of reports that we have been able to study, we find where F. B. Jassett reports the after history of a gastro-jejunostomy for supposed malignant trouble, who died eleven years after the operation, but the histories of most of the published records are of much shorter duration. Moynihan and Mayo Robson report on cases up to six years duration. H. J. Patterson of London has collected 116 cases, which he tabulates thus: Eight unsatisfactory cases, four of which died subsequently, and four relapsed. Twelve fairly good results, of which number six have occasional dyspepsia, and the other six were compelled to exercise some care as to diet. In the remaining ninety-six cases out of the one hundred and sixteen, two died from some other cause, and ninety-four are alive and well. Thus we see that in less than 7% of this tabulation of one hundred and sixteen cases the operation of gastro-jejunostomy has proved unsatisfactory. Now, in studying the report of each separate case that goes to form this tabulation, we wish to mention the fact that in two of this four relapsed, the anastomosis was formed by the use of the Murphy button and that in a third case the opening or communication between the intestines and stomach was only three-fourths of an inch in length. In the cases classed as fairly good results, where the patients were compelled to partake of a restricted diet, Murphy's button was used in three of the six cases thus tabulated, and in two of the remaining three the communicating opening was made less than one inch.

In establishing the gastro-jejunal communication, the following methods have been resorted to: The Murphy button, which is a mechanical appliance and which is much the simpler procedure, is a very uncertain method, and in the reports that we have been able to follow we find that there is usually much contraction, and that

it is these patients that have to undergo subsequent gastro-jejunosomies or live on restricted diets.

Halsted's mattress sutures are ideal for the securing of close apposition of the serous surfaces, but to make an opening of sufficient size, so many separate sutures will be used, that it will require from two to three times as long to apply them as the simple continuous sutures, nor do they include the mucous coats, which may give rise to a fatal hemorrhage, even after the patient has recovered from the anesthetic. We find that such fatalities have been reported, and furthermore, since the mucous membranes have not been included in the sutures, they evidently are not in apposition, which condition may and will permit of the gastro-intestinal secretions burrowing between the coats of the viscera, and should this occur would most certainly give rise to suppuration and perhaps fatal termination. We have further shown that when the mucous membranes are not sutured that there is great tendency to subsequent contraction and diminution in the size of the original communication. La Place's forceps, which have also been given a trial here, are open to the same objections. Bone bobbins have been found to be too small, that is, one large enough to insure a two or two and a half inch opening or communication, could not be used on account of the small lumen of the jejunum. This leads us down to continuous sutures, the use of which has claimed the following advantages: When applied in two separate circuits, that is, an inner one penetrating all the coats of viscera, thereby acting as a hemostat, and an outer coat only penetrating the peritoneum, thus bringing the coats of the two mucous membranes together, the gastro-intestinal contents are prevented from burrowing between the coats of the viscera and further prevents subsequent contraction from cicatrization.

JEJUNAL ULCER FOLLOWING GASTRO-JEJUNOSTOMY: Going back to the table of 116 cases collected and tabulated by Patterson, we find that a perforation of jejunal ulcer occurred three times, and altogether we have been able to find nineteen reported cases of jejunal ulcer following the operation of gastro-jejunostomy. Just why peptic ulcer of jejunum should follow this operation has not been fully explained, it being generally admitted that hyperchlorhydria is almost a constant concomitant of gastric ulcer, and as to whether it is cause or effect has no concern here, but it is cer-

tain that hyperchlorhydia is the condition that prevents the healing of gastric ulcer, and it has been repeatedly shown that the gastric contents rapidly lose their acidity after gastro-jejunostomy, and in many cases free hydrochloric acid could not be found, yet it is claimed that the exciting cause for peptic ulcer following gastro-jejunostomy, is the persistence, or subsequent development of hyperchlorhydia after an operation, and consequent digestion of the jejunal mucous membranes by the hyperacidity of the gastric juice, which condition may be due to an inefficient working of the visceral communication, and it has been suggested that the presence of an acid liquid in a fasting stomach is a very strong indication that the stomach does not undergo complete evacuation. Oral sepsis and long continued indiscretions and excesses in diet may lead to stasis and septic gastritis. Of the nineteen reported cases of peptic ulcer, we find that it occurred fourteen times in patients in whom the anterior operation had been performed, but we desire to emphasize the fact that until quite recently the anterior operation had been selected much more frequently, and also that the Murphy button had been used in a number of instances to effect the anastomosis, which method we have already shown may have resulted in a very much contracted opening or communication.

In summing up, we wish to add to the three cases found in this series of 116 cases, 179 cases from Mayo Robson without a single ulcer, making a sum of 295 gastro-jejunostomies followed by only three ulcers, or just over 1%. Prof. Wolfier reports one case and Mikulicz reports two in a series of 160 operations of gastro-jejunostomy, so we are led to believe from these reports that peptic ulcers will be prevented when the necessity for large anastomotic openings are realized, together with reasonable care in diet and the prevention of oral sepsis.

From these reports we beg to submit the following general conclusion: First, that a small opening will prove unsatisfactory. Second, that if the mucous membranes of the stomach and jejunum are not brought into complete apposition, undue contraction and possible complete closure of the opening ensue. Third, the risk of peptic ulcer and subsequent perforation of same is less than 2%. Fourth, the use of mechanical appliances to affect the anastomosis is attended with uncertain results. Fifth, that the proportion of patients completely relieved from gastric ulcer or pyloric obstruc-

tion is about 92%. Sixth, that patients may regain and maintain their normal weight and live for a number of years in perfect health. There can be no reason to suppose that the operation for gastro-jejunosomy tends to shorten life.

CASE: Mary S—— of Garyville, La., white female, age 38, a native of Finland and a housewife by occupation, came to us December 16, 1907, complaining of vomiting and extreme constipation, and appreciating the fact that she was suffering from some serious gastric trouble we had her admitted to the Touro Infirmary. As the patient talks and understands English very poorly, the history we have been able to gather is meagre and unsatisfactory. However, we learn that she has complained of and had been treated for stomach trouble for the past two years, losing weight and growing weaker for the past six months. She is the mother of six children, her mother having died from stomach trouble, father is living. After keeping her under close observation for some days, and having had her stomach lavaged and contents examined, bowels opened by the combined use of purges and enemas; we inflated the stomach with air, in which condition it required very little effort to outline the borders of the stomach. The upper border lying in a line with the umbilicus, and the lower border extending down into the right iliac region, we then caused the patient to expel the air, and carrying the examination further by palpation, were able to locate a smooth mass in the pylorus. From this we made a diagnosis of gastric dilation, gastroptosis and pyloric obstruction. The patient was prepared in the usual manner; food by the mouth was interdicted for a period of four days previous to the operation, and stomach lavaged and nutriment enemas instituted. December 28, 1907, the patient was operated on at 2 p. m. A median incision four inches in length was made, beginning just below the ensiform cartilage and extending down to the umbilicus. The stomach being exposed through this incision, a search was made for the tumor, and we found in the pylorus a hard, resistible mass, regular in contour and about the size and shape of a goose egg. Concluding that the tumor was non-malignant and probably an old cicatrix and the result of a gastric ulcer of former days, no attempt was made to remove it. The transverse colon was then brought up on the stomach and a slit made in its mesentery. The posterior walls of the stomach were then gently drawn through this meso-colon open-

ing and clamped with rubber protected clamps at the abdominal opening. The jejunum was then sought, brought up and clamped the same as the stomach, then began the lateral anastomosis of the stomach to the jejunum, which was accomplished in the following manner.

The posterior walls of the stomach being held in close apposition to the free border of the jejunum, eight Halsted mattress sutures of fine silk were applied, drawn up and tied, then two lateral mattress sutures were applied at each end and tied so that the line of approximation might be cupped or curved forward, then a row of mattress sutures were introduced anteriorly, thereby forming an oval shaped figure, but before tying them they were drawn apart so that the incision in the stomach and jejunum could be made, which was then done, each incision being two inches in length. A few bleeding vessels in the stomach were clamped and ligated, the anterior row of sutures which had been drawn apart were then drawn up and tied, these by completing the anastomosis, with the exception of a few Lembert sutures which were introduced as a matter of precaution to reinforce the mattress sutures. Clamps were removed and hot towels applied to the viscera, which had been exposed. The stomach then being placed back in position, the abdominal walls were then sutured in layers, dressing applied and patient returned to the ward. On recovering from the anesthetic the patient vomited a large quantity of bloody fluid. December 29, the following day of the operation, patient says she feels better, and did not complain of pain at any time during the night, and slept at intervals of fifteen and twenty minutes. She was catheterized. Maximum temperature 102. Minimum temperature 100. Maximum pulse 140. Minimum pulse 112. Following the operation an enema by the Murphy method, consisting of saline solution 16 ounces, coffee 2 ounces and papopeptone 1 ounce, was given every four hours. Two days after the operation the patient complained of a great deal of pain and nausea; slept very little, bowels had not acted, had not voided urine; temperature 99, pulse 88. Patient's nausea was aggravated when the enemas were given, hence they were discontinued and began feeding by mouth. Surgical diet. Patient immediately began to show marked improvement, which was uninterrupted until she was allowed the regular house diet. Twelve days after date of

the operation she vomited a large quantity of undigested food, which prompted us to restrict the diet somewhat and relieve the constipated bowels, which had persisted throughout the illness. Following this simple precaution, she developed no further trouble and was allowed to go to her home January 12, stating that she felt better than she had for six months. She has been seen three times since dismissal from the institution, and shows marked improvement in every way, gaining steadily in weight and can eat any article of food that she wants.

While we claim success in this case, we will not follow this method in future gastro-jejunostomy, for the reason already mentioned in our review.

Before closing we desire to extend our thanks to Dr. S. K. Simon, who conferred with us, and to Dr. Isidore Cohn of Touro, for valuable assistance in the operation.

Report of One Hundred Cases of Appendicitis.*

By S. W. STAFFORD, M. D., New Orleans.

In tabulating the work I had done in the past five years I was surprised to note that out of one hundred cases of appendicitis operated on nineteen had died. This at first glance is a remarkably high death rate, but when you consider that in this list are included all cases operated on, even those that were brought in by the ambulance practically moribund, the figures do not look so bad. Of the hundred cases sixty-two were clean cases, that is, no pus was found, and all recovered. Of the thirty-eight remaining cases pus was found in varying quantities and half of them died.

In one of the cases that died the bladder was incorporated in the inflammatory mass and carried half way to the umbilicus and over to the right side. In going through the edge of the right rectus the bladder was injured, but as the general peritoneal cavity had not been opened no harm was done. The opening in the bladder was sutured and a catheter was inserted in the bladder through the penis for drainage, the pus was evacuated and a large gauze drain inserted in the wound, but the man died in three days. Post mortem showed the stitches in the bladder to have held and no leakage. Another case, but one that recovered, in which a large appendicular

*Read at meeting of Orleans Parish Medical Society, May 9, 1908.

abscess was drained developed on the fourth day a urinary fistular through the wound. The opening in the bladder must have been a larger one, because on irrigating the bladder the solution ran through the wound as fast as it was injected into the bladder. This case gave me a great deal of trouble for one day, but after that made an uneventful, if slow, recovery, no secondary operation being necessary.

Every member of this Society is familiar with the symptoms of appendicitis, so I will briefly mention the most important and emphasize those that mean the most to me. A patient having a sudden pain in the right iliac fossa, with vomiting, rigidity of right rectus, tenderness over McBurney's point, even if these symptoms only last a few hours, has appendicitis, and had better make arrangements to have his appendix removed. It is seldom, though, that we see cases at this stage; they usually wait one or more days before consulting a doctor, when we find in addition to the above symptoms, which are aggravated, fever, obstinate constipation, generally a palpable mass, pulse fast and weak and the facial expression which usually accompanies the serious abdominal lesions.

My usual treatment in such cases is to put the patient to bed with an ice bag over the tender region, allow nothing by mouth and wait for a few hours. If he improves or remains stationary, in twelve hours I begin giving hot saline rectal enemas of eight ounces every four hours; when an interval of twenty-four hours has elapsed with no vomiting I allow small quantities, about one ounce of some concentrated liquid food with small quantity of cracked ice every two hours, the amount being gradually increased according to the ability of the patient to retain it and not become nauseated. This treatment is continued until his temperature has been normal for several days and the tenderness has greatly improved or entirely disappeared, when his abdomen is opened and his appendix removed. If, on the other hand, in spite of treatment he does not improve, the fever goes higher, pain gets worse and the vomiting continues, I operate at once, feeling sure that if the appendix has not already ruptured it soon will and his only chance is free drainage and removal of the appendix if possible.

In operating on cases of this character I always make the in-

cision through the sheath of the right rectus muscle, retract the muscle toward the median line and enter the general peritoneal cavity. This allows me to enlarge the incision in both directions and see conditions as they are. If the general cavity is not infected it is shut off with large gauze packs and after the pus is evacuated the appendix is sought for and removed. I remove the appendix now in almost all my cases where formerly I was content to evacuate the abscess cavity and go back for the appendix at a later date. In looking for the appendix I am guided a great deal by the location of points of tenderness on pressure before the operation; for instance, if the pain is felt along the crest of the ilium and in the direction of the ascending colon, I look and usually find the appendix behind or to the right side of the cecum; if, on the contrary, the pain goes toward the median line and the rectus is tender, the appendix is found anteriorly and crossing the ilium. Sometimes the pain gets worse as you go towards the pelvis, and in these cases the appendix is found deep and pointing to the true pelvis. In all cases when pus is found I drain.

In operating between attacks when I am sure there is no pus I use the button-hole incision, making it not over one and a half inches long, dividing the muscles in the direction of their fibres. This incision is a happy one when the appendix is easily found and the caecum not too much bound down, as it lessens the time the patient has to remain in bed to ten days and almost eliminates the danger of hernia. But when the cecum is bound down by repeated attacks and the appendix is incorporated with the cecum the operation is so difficult and dangerous as to make you declare never to use it again.

Of the hundred cases operated on I know of two cases of hernia that have developed, both being cases that were drained and allowed to close by granulation. I do not profess to say that they are the only ones that have developed, but they are the only cases that I personally know of.

In conclusion I want to say that I operate between attacks when possible. In complicated cases I make my incision large enough to see just what I am doing and remove the appendix without disturbing the surrounding bowel any more than absolutely necessary. I do what I have to do as quickly as is consistent with good work. When I find pus I drain.

The Use of Nitrate of Silver in Typhoid Fever.*

By G. FARRAR PATTON, M. D., New Orleans.

While fully sharing the modern belief that the majority of physicians formerly gave too much medicine in typhoid fever, the writer thinks it well to compare notes occasionally on the subject of what may be classed as rational and apparently useful lines of medication in the management of this disease, especially in view of the growing tendency to disparage the utility of drugs.

With the superior knowledge which we now claim as to the nature of typhoid infection and with accumulated evidence tending to show that, once started, the disease is practically sure to run its course despite of all the intestinal disinfectants that may be given, the trend of teaching naturally inclines toward placing less reliance on remedies of that class than was formerly done.

But there would appear to be a definite and well established range of usefulness for certain drugs in the beginning of the attack, no one denying the advantage of the judicious administration of calomel at that stage, while the older writers did not hesitate to claim that this agent is capable of aborting a certain proportion of cases if given time. A much advertised system of treatment exploited only a few years ago by one of the most honest as well as enterprising drug firms of the country was based on the combination of calomel with active vegetable agents in pellet form, and undoubtedly possessed the merit of favorably influencing the course of the attack in many cases, without, however, being able to make good the claims of specific virtue with which it was put forward by its originator and commercial promoters.

The evident utility of such medication in the early stage of typhoid fever would seem to suggest the advantage of making every effort to get what may be called "a good start." In the opinion of the writer this consideration is so important as to overshadow all other indications, particularly in cases which can be taken in hand reasonably early, though applicable in less degree to those further advanced when first seen by the physician.

The general idea of getting a good start is based on the mechanical principle of clearing out the alimentary canal as thoroughly as possible at the outset, and then attempting to reach the initial

*Read at meeting of Orleans Parish Medical Society, May 23, 1908.

lesions in the bowel by some agent which may be expected to exert a favorable local action. Admitting that this is theory, it must be conceded that it is surgically correct in principle, and after some twenty years experimentation the writer feels sufficient confidence in results obtained with nitrate of silver administered in an acid solution and in the manner presently to be described to warrant him in adopting and recommending it for the purpose of exerting the desired local action.

No originality is claimed in the use of this agent, which is accorded a more or less casual mention in numerous text-books in connection with the medicinal treatment of typhoid fever, while the formula employed is one suggested in a classic work by Eustace Smith of London, on the "Wasting Diseases of Children," published in 1870. That author recommends a somewhat similar formula as being particularly useful in certain obstinate summer diarrheas of children, and its remarkably good results in such troubles was the first incentive to its being tried in typhoid by the writer, who felt that if it were possible to apply a good strong solution of nitrate of silver to each infected Peyer's patch, solitary gland or lymph follicle sufficiently early, one might truly hope to cut short the disease. This not being practicable, the next best thing to do seemed to attempt flushing out the bowel with a mild solution containing an excess of acid to render it stable, and this is the plan by which it is hoped to get "a good start," with Dr. Eustace Smith's formula as a basis.

Nothing more is claimed for this plan than its apparent utility in modifying the severity of the attack, and a fairly long and faithful trial of it really seems to justify the belief that if undertaken early and actively it helps to prevent deep ulceration with the attendant dangers of hemorrhage and perforation.

With this preface by way of apology for bringing forward a remedy as old in application to typhoid fever as nitrate of silver, the plan itself may be next described, with the remark that it is purely and simply an attempt to secure for the initial intestinal lesions the healing action for which that agent is famous in external applications, and incidentally to obtain its beneficial effect on the entire mucous surface of the bowels.

Two requisites which may be mentioned as indispensable to the proper carrying out of the plan are,

1. The prompt and thorough clearing out of the bowel, and
2. Rigid adherence to liquid forms of nourishment.

As it is not the purpose of this paper to go into general details of medication, it will suffice to say that the administration of calomel, preferably in fractional doses at short intervals over the first twelve or twenty-four hours, is probably the method most in favor for securing the first of these requisites.

The form of liquid nourishment selected should be such as to be as nearly as possible assimilated, leaving little or no residue, and in fairly vigorous subjects who are taken in hand early it is even allowable to approach the line of judicious starvation now practiced in treating yellow fever, at least for a day or two, with the object of giving the acid nitrate of silver solution a fair chance to exert its local action. However, this partial starvation is not insisted upon, and naturally has its reasonable limitations. One point on which there is practically no disagreement is the advantage of offering the patient water to drink at regular intervals, whether asked for or not, in view of the condition of apathy which may prevail.

On the subject of suitable liquid nourishment for the stage of the attack when the most benefit may be expected from the action of the nitrate of silver solution, it would seem that broths and the prepared foods of the peptonoid and beef-juice type are preferable to milk.

For the sake of convenience in carrying out the treatment the liquid nourishment selected, which should be varied a little to relieve monotony, is administered at regular intervals, say of four hours, and one hour before taking nourishment, which means at a time when the stomach may reasonably be considered empty, the nitrate of silver mixture is given. The formula used by the writer is as follows:

Argenti nitr. cryst.....gr. ij

Acidi nitr. diluti.....M. x

Mucilag. acaciæ et aquæ dest a.....f. ʒj.

M. Sig. A teaspoonful in a wineglass of water one hour before food, as directed.

The dose of the silver salt, viz: 1-8 grain, in a distinctly acid solution diluted with two or more ounces of water, enters the stomach under conditions favorable to its finding its way into the

bowel with little or no change, and the almost magical effect observed in some cases of obstinate diarrhoea treated in this way may be taken as evidence that the mixture does actually reach the affected localities. The remarkable value of such modern combinations of nitrate of silver with organic compounds as argyrol and protargol may be suggestive of some similar combination taking place in the intestines whereby the action of the nitrate is favorably modified and extended. This again is theoretical, but surely we need not apologize for trying to think out the rationale of successful medication, rather than be content to administer our remedies with the blind faith of empirics.

In 1893, after this general plan of treatment in typhoid fever had been used by the writer for several years, Pepper's System of the Practice of Medicine appeared, and in the masterly article on typhoid fever in Vol. 1, written by Dr. Pepper himself, the following was read with the satisfaction that a comparatively young practitioner could not fail to derive from finding his own experience corroborated by so great a clinician and teacher:

"My own decided preference has for years been for nitrate of silver, which I give in every case from the first hour that the nature of the disease is suspected. It is given purely for its surface action, just as it would be used in a case of idiopathic gastro-intestinal catarrh.

"It is administered in conjunction with appropriate antipyretic treatment, and it is usually compatible with any other remedy required for special indications. Its use is continued throughout the entire course of the case, and as much as twenty-five grains may be given without the least fear of causing discoloration of the skin." * * *

Dr. Pepper expresses his preference for the administration of nitrate of silver in pills, and offers the following prescription:

Argenti nitratis.....gr. vi.

Extr. opii

Extr. belladonnæ, a a.....gr. ij.

Mannæ, q. s.

Misce et div. in pil.....xxiv.

Sig., a pill three times daily, soon after food.

He further adds, "If diarrhea develop the belladonna may be omitted and the opium increased; if constipation be present the

opium may be dropped and ext. nucis vom. gr. 1-6, be added to each pill."

It is to be noted that Dr. Pepper advises giving his pill soon after food, whereas the other plan described contemplates giving the acid solution when the stomach is empty. Dr. Pepper also continues the administration of the pills throughout the entire course of the case, whereas the writer has usually discontinued giving the solution after a time varying from one to two weeks, according as improvement was manifest, believing that whatever benefit was to be expected should materialize by that time. In some cases treatment has been begun with the solution and later changed to administration in pill form. The latter was given a systematic trial in Ward 17, of the Charity Hospital, in New Orleans, in the two or three years following the appearance of Dr. Pepper's work, but on the whole, it appeared, possibly without sufficient grounds, that the plan of giving the solution gave quicker results, especially with young patients.

Such, in general, is the writer's favorite plan of medication in typhoid fever, with reference to which it is proper to repeat what has already been said about making no claims for this method beyond its apparent advantage in modifying favorably the course of the attack, and of course, the earlier it can be undertaken, the better.

Without going into further details of the management of the average case, it may be stated that after discontinuing the acid solution, the writer usually follows out a routine of administering some intestinal disinfectant until the end of the attack, the drug most in favor for several years past being the carbonate of guaiacol.

According to ideas of the present day it may be questioned whether any such routine medication is really required. On this point the writer has adopted a conservative middle course in selecting the drug just mentioned as one which has the negative merit of being practically insoluble, and therefore free from objections which apply to some of the best intestinal disinfectants that have to be eliminated by the kidneys. Given in moderate doses of four or five grains at intervals of four hours, the carbonate of guaiacol is supposed to find its way mechanically through the bowel and to exert a mild but fairly continuous local effect. Be this as it may, it seems to answer very well and with the growing belief that sys-

tematic disinfection of the alimentary canal is distinctly serviceable in other acute infective diseases, we need not neglect a precaution which is at least theoretically useful.

Among routine measures of apparent value may be mentioned the systematic administration of small doses of castor oil, as practiced in the Charity Hospital, where spirits of nitrous ether is also administered with considerable regularity and apparent benefit. The medication charts of those wards also show that the old reliable turpentine emulsion has not lost its reputation, though fortunately the classical type of typhoid fever in which that remedy won its fame is now comparatively rare. It is the belief of the writer that the early use of the nitrate of silver plan of treatment would still further increase that rarity.

Vaccine Therapy in Gonorrhea.*

By A. NELKEN, M. D.

The opsonic theory of disease, as advanced by Wright and his co-workers, is of great interest to the student of gonorrheal infections. It seems to promise a distinct advance in the therapeutics of what is commonly a most rebellious disorder. The importance of the subject will excuse this rather inconclusive report of my results with this line of treatment.

As is well known, bacterio-therapy is capable of two distinct methods of application. First, treatment may be instituted with autogenous vaccines, the size and frequency of the dose being governed by the opsonic index. Theoretically, at least, this is the logical procedure. But, unfortunately, its use is restricted to those trained in laboratory technic. The second method is by the use of stock cultures of the infecting organism, dose and frequency being governed by clinical experience. If this second method of treatment should prove of real value, it is apparent at once that the field of usefulness of opsonic therapy would be immensely broadened.

It is interesting to note that in spite of theoretical objections to stock vaccines, clinical reports to date have not shown any noticeable superiority of autogenous vaccines over this method of

*Read at meeting of Orleans Parish Medical Society, May 23, 1908.

treatment. With a conservatism all too rare among pharmaceutical houses, before offering their stock vaccines for sale, Parke, Davis & Co. have supplied them freely to interested physicians for experimental purposes. My work has been done almost entirely with their product. Occasionally, when my supply was exhausted, I used the Mulford preparation.

I have treated by this method, in all, 16 cases. Eight of these cases were in the Touro Out-Clinic Department. Either because of their failure to return or because of our supply of vaccine running out, only two of these patients got more than a single injection of 20,000,000 gonococci. These two cases got two injections each. In none of those we were able to keep track of was any influence noticed to follow inoculation. The remaining eight cases were patients seen in my office practice. These cases were carefully followed, daily physical and microscopical examinations made, and their histories kept in detail. For the sake of brevity they are reported as concisely as is consistent with clearness.

CASE I.—A. M. Discharge 3 months. Active treatment. Gonococci. Diagnosis: Chronic anterior urethritis.

Feb. 25, 1908—10,000,000 gonococci.

March 6, 1908—20,000,000 gonococci.

March 16, 1908—20,000,000 gonococci.

March 22, 1908—30,000,000 gonococci. No gonococci in pus.

March 29, 1908—40,000,000 gonococci.

April 5, 1908—50,000,000 gonococci. (Mulford.)

April 20, 1908—Discharged cured.

CASE II.—B. O. Infection 10 days. Negligent treatment. Gonococci. Diagnosis: Acute gonorrheal vesiculitis (double). Ac. antero-post. urethritis.

April 1, 1908—20,000,000 gonococci.

April 9, 1908—20,000,000 gonococci.

April 18, 1908—40,000,000 gonococci.

April 24, 1908—20,000,000 gonococci.

April 29, 1908—Vesiculitis and posterior urethritis well. Gonococci present in pus from anterior urethra.

CASE III.—L. A. W. Infection two months. Regular treatment. Gonococci. Diagnosis: Chronic anterior urethritis.

March 12, 1908—20,000,000 gonococci. Treatment temporarily discontinued because of acute exacerbation, probably not related to vaccine.

April 8, 1908—20,000,000 gonococci.

April 14, 1908—40,000,000 gonococci.
April 20, 1908—50,000,000 gonococci. (Mulford.)
April 25, 1908—40,000,000 gonococci.
April 29, 1908—Gonococci abundant.

CASE IV.—Mrs. M. Infection for three days. Gonococci. Diagnosis: Gonorrheal urethritis and endocervicitis.

April 5, 1908—25,000,000 gonococci.
April 12, 1908—20,000,000 gonococci.
April 19, 1908—50,000,000 gonococci. Gonococci present in urethra two days later.
April 26, 1908—50,000,000 gonococci.
April 29, 1908—No discharge from urethra. Cervical discharge negative.

CASE V.—M. L. Discharge for two months. Severe treatment. Gonococci. Diagnosis: Chronic gonorrheal urethritis; acute gonorrheal cystitis.

April 1, 1908—20,000,000 gonococci.
April 5, 1908—Last urine clear.
April 8, 1908—20,000,000 gonococci. Gonococci in pus.
April 14, 1908—40,000,000 gonococci.
April 20, 1908—40,000,000 gonococci. No gonococci.
April 25, 1908—Small quantity of pus. No gonococci found.

CASE VI.—C. C. M. Discharge one week. Gonococci. Diagnosis: Acute anterior urethritis.

April 21, 1908—20,000,000 gonococci.
April 27, 1908—50,000,000 gonococci.
May 4, 1908—50,000,000 gonococci.
May 7, 1908—No gonococci found in pus.

This case has, after second injection, considerable erythema at site of puncture, a chill and rise of temperature. Third injection was followed by pain and redness, but no fever.

CASE VII.—J. McM. Infection five weeks. Active treatment. Gonococci. Diagnosis: Chronic antero-posterior urethritis; chronic prostatitis.

April 21, 1908—20,000,000 gonococci.
April 27, 1908—50,000,000 gonococci.
May 5, 1908—Gonococci still present.

CASE VIII.—J. S. Infection indefinite time. Gonococci. Diagnosis: Gonorrheal cystitis; gonorrheal urethritis.

April 1, 1908—20,000,000 gonococci.
April 8, 1908—20,000,000 gonococci.
No influence noted from treatment.

In no cases was active local treatment neglected during the use of the vaccines.

I might preface my analysis of these reports by saying that in no case were any harmful results noted following the inoculation. No case became worse or developed complications during treatment.

Case VI was the only one that showed a fleeting constitutional disturbance due to the injection.

Case I, which had been particularly resistant to local treatment, stands out as being especially benefited by vaccination.

Cases IV and VI, both acute cases, did well under treatment, but equally favorable results are commonly obtained when only local measures are used.

Case V suggests a favorable influence of the vaccine.

Cases II, III, VII and VIII were distinctly not influenced by the vaccine. In gauging the merits of any therapeutic measure, failures must always be more conclusive than successes. My experience, although too brief for any dogmatic opinion, would lead me to believe that stock vaccines have little, if any, value in the treatment of gonorrhea. It is possible, of course, that the size or frequency of the dosage may be faulty. Or again, the continuation of local treatment may have been a mistake. Or where vaccination failed, it is possible that we were dealing with a family of gonococci not closely related to the vaccine used. Torrey (*Jl. Med. Research*, vol, 16, No. 2, 1907) has shown that the family gonococcus is heterogeneous rather than homogeneous. His experiments prove that various strains of gonococcus may raise agglutins which are entirely distinct. I believe that different strains may be found in different stages of the same case, the result of adaptive changes through innumerable generations. This does not argue well for the possibilities of stock vaccines in gonorrhea.

Viewing the subject again from the broader standpoint of the opsonic theory of therapy, it is interesting to note that in gonorrhea the leucocyte does not appear to destroy the gonococci, which indeed seem to multiply within the pus corpuscle. The white blood cells appear to perform merely the mechanical role of carriers to remove the cocci from the tissues.

Gonorrhea, while it may become a systemic infection, is ordinarily a local disease.

In certain cases the gonococcus may live in the urethra or its neighboring glands for an indefinite period. Where the infection

is local, cure takes place through changes in the soil upon which the gonococcus grows.

Bumm and Finger believed that "during the course of gonorrhea there takes place a profound metaplasia of the epithelium in which the cylindrical cells are changed into a more cuboidal or even pavement type." (White and Martin.)

It is this pavement type of epithelium which is responsible for the infiltration and stricturing of chronic urethritis.

The gonococcus secretes no soluble toxin. It contains (as Wassermann first showed) an endotoxin or "toxic protein," which gives rise to local and general reaction in both men and animals.

In at least two cases I have seen a urethritis promptly get well following the systemic reaction produced by an acute epididymitis, the result probably being due to what might be described as auto-vaccination.

The opsonic therapy of gonorrhea is sound in theory and must eventually work out in practice. And some such line of treatment is our sole hope as a specific, since it is evident to every student of its pathology that the gonococcus can be satisfactorily attacked only through the blood stream.

Louisiana State Medical Society Proceedings.

EDITED BY PUBLICATION COMMITTEE.

DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

MAY 12-14, 1908.

DR. CLIFFORD H. IRION read a paper entitled,

The Economic Relation of the Physician to the Sanitary Interests of the State.

Before beginning a general consideration of the merits of the subject involved in the title to this paper, I have thought that a few words of explanation as to the causes which led to its preparation, its purposes, and the author's hope of accomplishment in presenting in a crude way his own views, based on observation and experience during his two years' connection with the State

Health Service, might best serve as an introduction, and at the same time give him an opportunity to disclaim any desire or intention to criticize in a captious spirit a profession which has done more than any other towards the proper advancement of the interests of the human race.

While the medical men of Louisiana are not behind those of any of our sister States in skill, heroic self-sacrifice, and unflagging devotion to professional duty, it is a matter of common knowledge that they do not wield the influence in shaping legislation for the betterment of conditions in the line of their professional work which is exercised by the profession in some of the other States. That there is a cause for this lack of influence does not admit of reasonable doubt. It is one of the purposes of this paper to establish the relation of "cause and effect," between the neglected opportunities of the medical men on one hand, and their "lack of influence" on the other, and it is my hope that this Society may find something, in this modest presentation of an important matter, worthy of its serious consideration and discussion, to the end that the standing of the medical men, individually and collectively, may be such as to command the respect of every right thinking citizen of the State, who has the opportunity to advance the public interest.

I believe that in a large majority of instances the public's estimate of a man is substantially correct, and in those instances where the public misjudges a man, it is not the public's fault. It is much to be regretted that the business methods of too many physicians are those of hustling tradesmen, and the critical public, always ready to ridicule and underestimate the professional man, does not fail to take the measure of such men. When that class of medical men is upheld by their brethren who are striving to live up to the higher ideals of the profession, it is the latter class which suffers; and not unjustly, for the discriminating public does not consider that it is one thing to do wrong, but a different thing to excuse or shield the wrong done by another. Unfortunately all the quacks, charlatans, and criminal abortionists are not confined to the advertising professional highwaymen, and the ignorant midwives; but if we are to believe the statements of intelligent and reliable laymen, there are members of the profession in good standing, who will and have prostituted themselves to the

commission of the cowardly and heinous crime of abortion for their price. Such a man is more than a disgrace to the profession, and does more to bring it into disrepute, than twenty men of exalted character can do to build it up. It should be just as much the duty of medical men and medical societies to hunt down and expose this class of professional criminals to the operation of the law, as it is the duty of sheriffs and other peace officers to hunt down and capture that class of lesser criminals, who take the lives of their fellow men in the heat of passion, or waylay and assassinate from ambush, or break in in the night time and murder for the sake of robbery.

The complaint of the physician everywhere is that the public does not properly appreciate him. I believe that his complaint is, in a measure, a just one. It is notoriously true that the public is slower to recognize its duty than in visiting its censure. But is it not equally true that the average physician has set for himself a snail's pace in arriving at a fair estimate of *his* duty to the public? On the one hand the public is not in a position to instruct itself as to the value of the physician as a public benefactor; on the other, the physician whose interest it is that the public should give him a lofty place in its esteem, pursues the daily routine of his narrow path, for what there is in it, apparently oblivious to the splendid opportunities staring him in the face to make himself valuable to the community which contributes to his support. The average physician manages skillfully his cases of malarial and typhoid fever, and usually with success. But the average physician does not consume much of his time in the instruction of his clients in the means of preventing these diseases. Much of his time is taken up during the hot months, in visiting children who are the innocent victims of vicious feeding, as a result of ignorance on the part of mothers; but how much of his time is consumed in teaching those mothers how to properly feed their little ones, and impressing them with their responsibility as care-takers and guardians? I might go on almost interminably citing instances which occur daily in the professional experience of the average medical man, where an exhibition of intelligent thoughtfulness on his part would largely extend his influence for good. It is not the purpose of this paper to go into details, but only in a general way to call attention to a vast and important field, which has been neglected

at a fearful cost, both to the public and to the medical profession.

The age of superstition has passed. The lay public of today knows that the physician carries with him no mysterious, wonder-working agent, through which he performs miraculous cures. The indifference and antagonism of the public to the opinions and views of the medical man, as expressed in his efforts at legislation, can not be charged altogether to prejudice. It is an evidence of weakness on our part to overlook or deny the existence of a more substantial foundation for this admitted opposition. It is the duty of the profession to thoroughly and impartially investigate the whole subject, with the determination to find the truth and speak it. When we are prepared to lay before the public all the facts in the case, with the evidence of an unselfish desire on our part to bring about conditions tending to prolong human life and alleviate human misery, the last vestige of opposition and antagonism will be swept away. Not until then will the medical profession "come into its own," and fill the place reserved for it in the economic machinery of government.

The first duty of the medical profession, as a whole, should be to guard the public health by preventing disease from gaining entrance to the family or community. Hygiene, which has been defined to mean the art of preserving health, should be properly taught in every school in the State, public and private. The tendency of the day is to regard all disease of bacterial origin and capable of transmission only through germ contact. This bacterial theory of disease origin is fashionable with the profession as it is with the laity. There is danger to the public in the absorption of this erroneous idea. The only sources of information which the laity have are the newspapers and magazines, and it is not strange that they should be supplied with knowledge which is only part truth. A strained interpretation of an ethical law, which discountenances any form of advertising on the part of medical men, seems to be largely responsible for this condition, and the remedy lies in the hands of the profession alone. That this ignorance on the part of the public, of those ordinary laws of hygiene and sanitation necessary for self-protection, is not to the credit of a profession which bases its very right to existence on the broad foundation of humanitarianism, can scarcely be denied, and no effort should be spared, which is consistent with a proper sense of dig-

nity, to impart such instruction to the people as would put them in a position to render intelligent co-operative service in conserving the public health.

The economic relation of the physician to the sanitary and hygienic interests of the State should not be judged by the combined sums total of the revenues of doctors, sanatoria, and funeral directors, with the other expenses attendant upon sickness and death added, but upon the value of the physician's services in saving and prolonging the lives of its citizens; in making the State attractive to the intelligent homeseeker, who is looking for a healthful and salubrious climate, as well as a fertile soil, and promising commercial outlook.

In my opinion, the way to demonstrate the physician's value as a potential factor in the progressive development of the State, is not by the expenditure of vast amounts of energy, and the exhibition of shrewd political ingenuity, in having laws placed upon our statute books for the protection of the medical profession, or for the protection of the public, but in a wise and well laid plan of education, which should begin with the education of the physician himself. Being prepared to teach, the physician should include the work of instruction in the routine of his regular duties, and be zealous in his efforts to impart to that part of the public which is under his particular care, such information as will enlighten them to their responsibility for disease and premature death. When the medical profession faces the appalling fact that twenty-five per cent of all deaths occur during the first twelve months of life, and that about thirty per cent of all the children born into the world die before they reach their fifth birthday, and that in Louisiana about forty-five per cent of the white male population dies between the ages of twenty and sixty years, it would seem to be time to overhaul the life-saving service. We will not have to go far to locate the trouble. Ignorance of the nature, causes and effects of disease, which is excusable on the part of the public in direct relation to its being chargeable to the medical profession, overshadows all other causes for this deplorable death-rate. No great change for the better can be looked for until the public is brought to realize that successful human breeding is based upon the same laws of heredity and environment which apply to, and govern the successful breeding of horses, hogs, cattle and

poodle dogs. Self-preservation being the first law of nature, it follows that that law will become operative only when danger which threatens the purity and integrity, if not the final destruction of the human race, is made known and the way pointed out by which that danger can be avoided. It is well known to the medical profession that the progeny of those afflicted with certain diseases, as tuberculosis, syphilis, alcoholism, epilepsy, and many others, come into the world marked to fill early graves; many of them after passing through the criminal prisons or the asylums for the insane. Such knowledge should be instilled into the public mind, with the hope that being in possession of this information the layman will earnestly co-operate with the medical profession to eradicate the causes of race destruction. I do not believe that this hope will be realized until some radical changes are made in the regular routine of professional work, and definite policies, based on these changes, are adopted and publicly announced. In view of the fact that so many of the most destructive diseases have been placed in the list known as "preventable," I am convinced that the time has arrived for the physician to insist that a line be drawn through the medical profession, on one side of which should be the practising physician, and on the other the trained sanitarian, each co-operating with the other, and assuming his just share of responsibility. A proper division of the work, in my opinion, would be to leave in the hands of the practitioner, the medical treatment of the sick, and prophylaxis in person, and to the health officer, the sanitary management and control of premises, or the prophylaxis in place. Sound reason for such a system to my mind seems obvious, and should appeal alike to the profession and to the public. To call the attention of parents to contributory negligence on their part, as a probable cause of the serious illness of a child, whose life is hanging in the balance, is abhorrent to the finer instincts of the family physician, and the thought of adding remorse to sorrow will continue to have in the future, as it has in the past, the effect of sealing the lips of the family doctor to any words of censure.

For the efficiency of such a system, I am convinced that the health officer should be required to devote his entire time to the duties of his branch of the work, and should not be allowed to practice general medicine, and in the event of his rendering emer-

gency service, should not be allowed to make any charge for it. The health officer should be a graduate of medicine, in good standing with the profession, and subject to its ethics. He should hold a commission, and be paid a fair salary as a public officer. His duties should be defined by the State Board of Health, one of which should be the prompt inspection of premises on a notice or request from a licensed practitioner of medicine, and the institution of measures to prevent the outbreak of disease or the spread of contagion. A modest salary should be provided for the first year's service, and increased from year to year, very much upon the plan in force in the United States Army, Navy and Marine Hospital Service, to a limit of two thousand dollars at the end of five years, with necessary office and traveling expenses. The salary limits which I have suggested, while possibly above the average earnings of physicians in the country in the first five years of their professional lives, are not sufficiently attractive to tempt that class of men who enter the profession with no higher ambition than to make money, while to that large class of deserving young men who exhaust their means in taking their degree it would be regarded as ample.

Such an officer in each parish of the State, with special provision for cities and large towns, would be a valuable adjunct to the present system of practice, and in addition, with the active sympathy, support and co-operation of the regular practitioner, would render a professional service of such high character that the public would soon come to regard it as invaluable from an economic point of view.

DISCUSSION.

DR. IRION: I merely presented this paper in order to open up a discussion on this subject. I did not elaborate, because I do not want to make the paper too long. I do not think the health officer should be a practising physician. I have had physicians tell me that the reason they did not report cases to the local health officer was because the local health officer was a practising physician in competition with them, stating that in some cases where reports were made to the local health officer, he would tell the parties that the case had not been properly handled and that if he had had the case, the patient would not have died. I believe if the health officer is taken out of practice, that his office can be

made a great deal more useful and with a small salary, a thousand dollars a year to begin with, he can devote his entire time to the duties of his office. Many young physicians do not make that much in the early years of their practice. The amount could be increased in the course of five years to \$2,000, and he could save sufficient money to carry on his study. He would then be better trained, and have a good foundation for his future. This is the reason I suggested that. I believe the time has come for the medical profession to take this matter up. The health officer should be a man who co-operates with the physician who is in practice. We should not have a health service in name and not in fact.

Orleans Parish Medical Society Proceedings.

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In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.
DR. HOMER DUPUY and DR. S. K. SIMON.

MEETING OF MAY 9, 1908.

DISCUSSION OF DR. WEIL'S PAPER ON HEADACHES OF NASAL ORIGIN.

DR. JOACHIM: If you approach the subject of nasal headaches with some degree of mental reservation, I am sure that you have much company; and why should you not? The ophthalmologist cures this symptom by relieving eyestrain; the aurist by inflation of the ear; the rhinologist often succeeds in curing it by correcting abnormal conditions of the nose; the stomach specialist—what shall we call him?—succeeds by washing out the stomach; the gynecologist has ample opportunity for the relief of this distressing symptom by attending to the pelvic organs, and the general practitioner gives frequent relief by the judicious administration of a dose of calomel. Not to mention the relief given by the hydropathic, the electric, and massage methods in one way or another would be an omission scarcely passed over by those who really relieve this symptom—not always, but at times.

There is Pandora's chest for you, a gift for everyone, and even when success does attend our efforts, there is still hope left for us and our patients. But what do these evident successes and failures in so many cases mean? There may be some of you who know all about headaches, cephalalgia, migraine and this class of diseases, but I confess myself to belong to those who are seeking more light. Headache is one of the most ubiquitous symptoms in disease and no doubt due to many causes, and until the exact relations between cause and effect as regards this symptom are established, we must needs do a lot of thinking; but this does not mean that in all cases we are entirely at sea, either as to the classification or the rational method for relief of headaches, and so far as its causation by the abnormalities in the nose is concerned we have an abundance of literature at our command and an abundance of clinical evidence from the most reliable sources and from the best minds, to sustain and prove absolutely the dependence of headaches upon abnormal conditions in the nose. The historical development, the sway of views from one extreme to the other, is one of the most interesting chapters of our specialty, and it all happened within the memory of those who remember the introduction of cocaine into our remedial resources. In speaking of nasal reflex neuroses it is a far cry from the claim of Alexander Francis, of Brisbane, with 80% of cures, and Snow, with 75% of cures, to the blunt remark of Hayek, who demands that the whole subject of nasal reflexes be put aside. As usual the truth lies between the extreme views of both. The clinical evidence of some of our most conservative observers points that way. In many cases there is unquestionably an absolute cause for headaches arising from the nose or its accessory cavities. That the purulent conditions and the empyemata of the ethmoidal cells and accessory cavities of the nose cause headaches anteriorly, when the anterior cavities, in the back of the head usually, when the sphenoidal sinuses or the posterior ethmoidal cells are affected, is a universal observation not open to question. Headaches exist without doubt, and I can bear personal testimony to it, in vaso-motor disturbances of the nose, as well as in acute inflammations of this organ. We have here, anatomically speaking, a stasis of the venous blood supply with extreme dilatation of the cavernous mucous membrane. This stasis extends through venous anastomosis to the cerebral cov-

erings and produces, I may say, typical headaches. Spur and ridges arising from the nasal septum and burrowing themselves into membranes of the opposite turbinals, give often rise to headaches. Their removal is so frequently productive of permanent relief that their causal relation is beyond doubt. From personal observation I can testify that pressure from the septal tubercles does produce headache and that their reduction often gives relief. I could cite cases in proof of it. I do not believe that sufficient attention has been directed to this condition.

The Doctor's able paper has pointed out a large class of cases in which nervous headaches can and do occur from pathologic conditions of the middle turbinal alone. I am inclined to believe that the diseased process extends in these cases to the anterior and posterior ethmoidal cells and by causing abnormal circulation in these parts produce a condition of stasis and consequent headache.

I am not prepared to go so far as to say that every pressure point existing or every possible pressure point from swell-membranes is productive of headache. I do say that it may produce headache and it is our duty to explain to the patient this uncertainty and a possible failure, before we undertake to treat him. In doubtful cases, it is advisable to use, with caution, however, a therapeutic test. I mean the cautious use of a spray of a solution of 2% novocain with adrenalin. By producing a local anesthesia and ischemia we can in many cases, where we are in doubt, by elimination of the first link of the vicious circle producing the reflex headache, stop the headache, if it is of nasal origin.

When such conditions exist, and interfere with the normal functions of the nose, we are warranted and justified in our attention to them on their own account. The beneficial effect on normal nasal breathing often cures the headache by the general improvement and impetus given to the nutritive functions, and thus to the whole system.

DISCUSSION OF PAPER BY DRs. TUTEN AND STONE.

DR. SIMON: I saw the case presented in the paper just read, and had the privilege of examining her carefully with the essayists. The condition was of much medical interest, aside from its surgical aspects. When we first saw the patient there was persistent vomiting and she presented the typical picture of pyloric ob-

struction. No test breakfast was possible on account of the constant vomiting. Examination of the stomach contents showed excessive hypochloridia and some sarcinae were found. There was at no time any suspicion in our minds of malignant disease. Upon inflation of the stomach, the tumor, which was about the size of a pigeon egg, was beautifully revealed. The history showed a rather clear picture of chronic ulcer. For some 12 years patient had been troubled with vomiting and had undergone various kinds of treatment, with no material benefit. There had probably been excessive hyperchloridia all along. No cachexia was present. The diagnosis of scar tissue from previous ulcer, contracting and obstructing the pylorus, was plain. I was also present at the operation. Upon opening the abdomen the tumor was found and, again, upon inspection of the mass, there was nothing to suggest malignancy. No metastatic involvement, glandular enlargement or inflammatory reaction was present, and no hesitation was felt in proceeding to deal with the condition as a mechanical obstruction to the pylorus merely. The patient made a splendid post-operative recovery. After two days she was on regular liquid diet by mouth and in two weeks full diet was being taken without any of the previous symptoms. Everything now indicated ready passage of food from the stomach to the intestines.

In this connection I would like to call attention to some of the dangers of jejunostomy. A certain percentage of cases develop fresh ulcers after this procedure and it has been inferred that the hyperchloridia present is the cause of this. The excess of HCl is not to be stopped at once, and the lips of the operative wound are apt to be corroded by the acid. The newly made opening is underneath, and the stomach contents, after being churned up, gravitates into the outlet, where the strongly acid matter acts upon the denuded tissue. Alkalies have been given to reduce the highly acid condition and prevent ulcer formation. Another point that occurs to me now, if I may be permitted the digression, is the supposed danger that formerly was thought to follow jejunostomy. It was thought that the loss of the digestive function performed by the duodenum was serious, but it is now known that this digestion readily takes place in the jejunum as well. I would like to hear some remarks from the surgeons present on the results of this operation.

DR. JACOBY: I have had no personal experience with the operation. It seems to me, however, that where it is possible to do a pylorotomy with a gastroenterostomy, it should be done, instead of a gastro-jejunostomy alone. Or, if it is advantageous to do the latter any way, to do the first in addition, as the benign growths of the pylorus are apt to become malignant. Dr. Danna tells me that he frequently uses the Murphy button—a long, straight button about two inches in length—with excellent results. They are especially applicable in those cases where operative haste is required, for they are great time savers.

DR. TUTEN (in closing): Use of the Murphy button has been referred to in the discussion. In our paper we brought out the fact that the remote results following a gastro-jejunostomy done by the Murphy button method had not been good, from the fact that the mucous membrane had not been excised, which early became constricted, and thereby caused a narrowing or lessening of the communicating opening, and to overcome this one condition it was necessary to make the openings large to begin with, as well as to excise the mucous membrane.

DISCUSSION OF DR. STAFFORD'S PAPER.

DR. NELKEN: I should like to ask Dr. Stafford how he removes the appendix when there are no complications? Wyeth, of New York, advocates the simple expedient of ligating and amputating the appendix and then cauterizing the stump with carbolic acid. This seems a simple method and I should like to know whether Dr. Stafford has used it.

DR. SALATICH: I would like Dr. Stafford to tell me why he has used the Battley incision, instead of that of McBurney, in cases where complications were suspected to be encountered? I was under the impression that the McBurney incision is the one of choice.

DR. STAFFORD (in closing): Answering Dr. Nelken, I will state that I usually crush the appendix with heavy forceps and then place a ligature about it before inverting. This precaution is necessary to preclude the possibility of bleeding from the stump. A small artery to the appendix is found in some instances, and not infrequently it is the source of serious hemorrhage when the stump is

inverted without ligaturing or crushing. In one instance personally known to me, hemorrhage from this source proved fatal.

Answering Dr. Salatich, I will say I chose the Battley incision because it affords more room in which to do whatever may be necessary, and at the same time see just what you are doing. The general cavity is easily shut off with large gauze sponges, and when this is properly done infection is impossible.

RELATION OF CASES AND MEDICAL NEWS.

DR. JOACHIM related two cases of results from "*Improper Attempts at Removal of Foreign Bodies from the Ear.*"

The first case was that of a boy who had pushed the rubber end of a lead pencil into the external auditory canal. When seen it was evident that a great deal of force had been used by those trying to extract the rubber, as the meatus and walls of the canal were very much traumatized. His first attempts at removal were not successful, on account of the rubber having become partially disintegrated by the fluids about it and the expansion of the mass. He sent the boy home, after prescribing antiseptic instillations. Patient was subsequently brought back and on this occasion an anesthetic had to be given, but notwithstanding the use of the most suitable instruments in working through the canal, no hold could be gotten of the softened rubber which would permit its removal. Finally an entrance from behind the ear had to be made, and after splitting the membranous canal a firm hold on the foreign body could be secured, and by this route extraction was accomplished. Some purulent inflammation followed, but in a short time the perforated membrane healed over and there was no loss of hearing.

The second case is one of unusual interest, presenting a rare status of affairs. The little girl between 5 and 6 years old had put a water-washed pebble such as is found in the gravel of our streets into her ear. A kind neighbor tried to remove it with a hairpin. As she did not succeed the child was brought to the hospital, where its removal was attempted under anesthesia. When the doctor found such traumatism produced by the almost criminal attempt to remove the pebble, as to make its removal more than usually difficult, the case was referred to me. The child had become nervous and anesthesia was found necessary. The first un-

usual condition which presented itself was an excessive amount of clear fluid which flooded the field continually and had to be incessantly removed in order to see and finally remove the pebble with difficulty. The inner part of the meatus was extensively traumatized, the drum membrane torn in every direction, the malleus dislocated with its lower end just visible in the field. This was also removed. We pipetted this fluid and filled a test tube 1-5 full and could have filled it entirely. Of course we knew that we were dealing with liquor cerebri. The membrane of the fenestrum rotundum was missing, and opening presented the size of the end of a match. At the time of this report the cerebral fluid still escapes, and Dr. Butterworth, who saw the case with me, will report on the general symptoms. The case will be reported more fully with subsequent cases.

DR. BUTTERWORTH: I saw the case with Dr. Joachim and was especially interested in the amount of cerebro-spinal fluid coming from the ear—three or four ounces daily, perhaps. There seems to be rather a lack of general symptoms, considering the amount of traumatism done to the ear and the loss of fluid. There was myosis of that side and some localized flushing of the face. Pulse fluctuated from 110 to 120. Respiration undisturbed. Temperature only slightly disturbed. The tongue deviated slightly to the left. As stated before, the symptoms were for the most part local. The question was what would be the ultimate outcome of this case.

MEETING OF MAY 23.

DISCUSSION OF DR. NELKEN'S PAPER.

DR. BASS: I have had no extensive experience in the treatment of gonorrhea, and practically none with stock vaccines. However, I am convinced, from the observations of others, that vaccines cannot be expected to make great cures, when used alone. Those who are responsible for the institution of this mode of treatment have never claimed such specificity for them. There are many contingencies to be dealt with in their practical utility which do not come in for consideration in laboratory experiments. Unquestionably we raise the resisting power by the use of these vaccines, but in clinical practice many other things are necessary. In the

case of a local infection, as gonorrhea, we cannot hope to exert a necessarily curative influence upon an infected focus, even though we raise the opsonic index and thereby increase systemic resistance to the maximum obtainable. Gonococci are in the urethra, bladder and urine. The organisms grow and multiply on the surface of the membranes of the parts in cavities and sacs and in the urine. Virtually they remain external to the body. The blood serum and leucocytes which carry these antibodies never reach them. The same principles hold as in abscesses. In the latter instance, unless the abscess cavity is drained and irrigated, the leucocytes do not reach the infecting organisms. Laboratory work with vaccine agents is pretty and convincing, but in actual practice they are only helps. With gonorrhea irrigations by drinking water and otherwise is necessary.

One statement of Dr. Nelken's I would like to take issue with. He referred to gonococci being found in dead pus cells and inferred that the organisms multiplied there previous to the death of the leucocyte. This is misleading, as gonococci never multiply in living leucocytes. The explanation of the fact that dead leucocytes are sometimes found filled with gonococci is that during the contest the leucocytes ingest numbers of the organisms, and if the leucocytes should be killed in battle, they are necessarily found with gonococci in their bodies. After the leucocyte is dead, further multiplication of the gonococci is possible, but not until the cell is dead. While a leucocytosis is not necessarily effective against gonorrheal infection, the fact remains that leucocytes do ingest gonococci, and as the leucocytes are swept out as pus they carry loads of gonococci from the infected tissues. This phagocytosis of gonococci depends absolutely on the amount of opsonin in the serum, which may be markedly increased by judicious use of appropriate vaccines.

DR. NELKEN (in closing): I wish to thank Dr. Bass for his discussion of my paper; however, I cannot argue with him on the points he has raised, as I conclude that he is a better bacteriologist than I.

DISCUSSION OF DR. PATTON'S PAPER.

DR. NELKEN: I do not wish to appear as criticizing Dr. Patton's interesting paper, but must say that I have little faith in the so-called "intestinal antiseptics" in typhoid fever. I think it

is generally acknowledged that typhoid is not a local disease, but a systemic infection with local manifestations. Even granting that drugs administered by the mouth can exercise any antiseptic action on the lower end of the ileum after traversing the mouth, esophagus, stomach and entire lower bowel it seems difficult to believe such action possible of nitrate of silver. We know that applied locally, in strong solution or even pure, nitrate of silver is most disappointing as an antiseptic. In solution it is a most unstable salt, being broken up by anything but distilled water. The virtue of nitrate of silver is due not to its antiseptic qualities, but to its action as an irritant, or better, as a stimulant to diseased areas. This irritating effect is believed by Fraenkel to be due to free nitric acid. Porosz, of Budapest, following the idea, has used dilute HNO_3 in gonorrhea. That the antiseptic action of nitrate of silver is not due to the silver contained is abundantly shown in the reports of the commission appointed by the British Medical Association, by Derby of Boston and others. That small quantities of nitrate of silver given in solution by the mouth and certainly broken up before it leaves the stomach can exert any antiseptic action on disease of the lower end of the small bowel seems to me to be highly improbable.

DR. E. D. MARTIN: Dr. Nelken may be right in his contention that silver nitrate does not exert marked antiseptic effects in the bowel and elsewhere, but despite this we know from practical observation that it gives good results. When used in tubercular diarrhea its effect is often excellent. In cases of ulceration of the lower bowel, local irrigation with silver nitrate solution gives good results. I now have a case with fresh ulcer in the rectum in which silver nitrate irrigations are giving splendid results.

DR. LEDBETTER: There is one good point in connection with the use of silver nitrate in typhoid which I would like to emphasize, viz., the rarity of perforation when this drug is used. I will not argue the point as to whether it reaches Peyer's as such or whether it directly prevents perforation, but I do know from personal experience that those cases in which it is used rarely have perforation. I have been using this salt in typhoid for a number of years, having gotten it from Dr. Patton when he first began its use and during this experience I have had no cases of perforation of the intestine.

DR. BASS: I would like to call attention to some erroneous ideas that have prevailed as to typhoid, which has been regarded too much as a local infection of the intestinal tract, and treated as such. A few years ago the treatment of this disease was all "intestinal antiseptic." Many drugs with such properties were tried. Some gave good results, so claimed at the time. But later, when we began to examine the blood of typhoid patients more extensively, this idea of disinfecting the intestinal tract was put aside, for we began to find that typhoid bacilli were in the blood stream and concluded that the disease was a systemic involvement. Now the pendulum has swung to the other extreme, and we find the use of intestinal antiseptics discontinued for the most part. The point I wish to make is that the comparatively small number of bacilli in the blood scarcely gives rise to the symptoms of typhoid. It is estimated that a single Peyer's patch may contain a larger number of bacilli than could be found in the entire blood in a given case. From this it may well be argued that the systemic infection or bacteriemia is not much to be considered.

Elimination of the bacilli from the blood takes place chiefly through the kidneys, and once the genito-urinary tract is infected the bacilli grow well in the urine and are often to be found in it for a long time after they have disappeared from the blood and after symptoms have subsided. Typhoid should be regarded as a toxemia, but owing to the comparatively small number of bacilli in the blood, we can scarcely regard it as a bacteriemia. After all it will be found to be practically a local disease, the active infection being limited to certain tissues, generally intestines, mesenteric glands and spleen.

DR. A. C. KING: There is one point in the treatment of typhoid which I would like to mention in this connection, that is the desirability of thoroughly cleansing the intestinal tract with a brisk purge in the beginning of the attack. Cases thus treated do better throughout the course of the disease. I use calomel for this purpose. At one time such a procedure was regarded as dangerous, but I have never seen any untoward results follow this practice, although I have made use of it for a number of years. As to the argument whether typhoid is a local or systemic infection, I am inclined to look upon it as a local intestinal infection for the most part. The clinical manifestations do not appear to me to be in-

dicative of a systemic infection, not purely so at any rate. I have noticed that where there is not much intestinal disturbance and other signs of a severe infection, the case does well—proving to a certain extent the importance of the condition of the bowels during the attack. I have had no experience with the use of silver nitrate, but upon the suggestions I have heard here tonight, feel inclined to try it.

DR. HENRIQUES: Dr. Hume, several years ago, read a paper, in which he commented upon the good results of nitrate of silver given intravenously. As Dr. Hume contended in this article, it seemed to stimulate leucocytosis. Perhaps some of the results of the drug given otherwise may be attributed to this influence. I would like to ask Dr. Patton if, according to his opinion, it has any influence on the fever directly?

DR. GRANER: Nitrate of silver might be regarded as an old remedy in typhoid. It would be well if successive careful examinations of the feces were made in the test of this remedy to determine whether the number of bacilli were diminished. As to the time the organism is found in the urine after typhoid, I recall having noticed a statement in the *British Medical Journal* recently in which a certain authority says it may continue to be present for a long time after recovery. In the same article, mention is made of the typhoid bacillus having been found in an infarct of the kidney seven years after an attack of the disease.

DR. DABNEY: I have never used the solution of silver nitrate in typhoid, but have quite often given it in pill form, especially where there happened to be flatulence or pain. In quantity, I give 3-4 gr. three times daily. The results have always been satisfactory. I would be inclined to use the same practice under similar conditions in typhoid as exist in tropical dysentery. Local flushing of the bowel with the solution is extremely beneficial in the latter condition. It does not matter much whether results are due to the free nitric acid, the silver base, or what not. The favorable change is what we are interested in. The organic chemist says silver nitrate is a feeble antiseptic and that it readily splits up in the intestine, etc., but the clinical results are there to counteract his argument. Hippocrates, centuries ago, formulated the doctrine, "Facts are superior to reason"—and I am inclined to agree with him.

DR. NELKEN: I should like to ask Dr. Bass if it is not a fact that patients have had typhoid fever and have died of the disease and post-mortem has shown no intestinal involvement?

DR. BASS (replying to Dr. Nelken's question): Peyer's patches may merely become inflamed and edematous, not reaching the point of ulceration in certain cases. Absence of ulceration in Peyer's patches at autopsy, therefore, does not necessarily prove that the patient has not had typhoid.

DR. PATTON (in closing): I am glad to see the interest which these gentlemen have manifested in this subject, and take this occasion to thank them for this discussion. I admit that it is somewhat difficult to account for the good results in the use of silver nitrate; but the results are there to show for themselves.

In response to Dr. Henriques, I will say that I have not noted any marked influence on the range of temperature, but as contended in the paper, the treatment tends to modify favorably the course of the disease. During the time we were making a test of the remedy in Ward 17 at the Charity Hospital, we used both the pill and the solution, and it seemed to me that the latter gave the best results. I am glad Dr. Ledbetter spoke during the discussion, as he worked with us at the time we made the tests of this agent in the hospital ward.

MEDICAL LAWS.—Of the 317 Acts created by the recent session of the Louisiana Legislature, only 6 have any bearing whatsoever on medical, health or sanitary matters. These are: Act No. 75—"To Require Tax Collectors to Demand Proofs of Registration When Applying for State License;" Act No. 97—"To Compel Life Insurance Companies to Make Medical Examinations or Waive Right to Forfeitures;" Act No. 107—"To Regulate the Sale of Cocaine;" Act No. 185—"To Create a State Board of Osteopathy;" Act No. 244—"To Amend the Act to Regulate the Practice of Medicine;" and Act No. 292—"To Provide for the Testing of Sight and Hearing of Public School Children." We intend to publish the full text of the amendments to the Medical Practice Act in our next issue.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Reflections.

The medical profession has for a long time been the target for the newspapers and because the medical profession has seen fit to urge a regulation of the practice of medicine, not only to protect the rights of the profession, but to protect the public as well, the vehemence of the editorial anathema has been exploded.

The sanitarians, investigators, discoverers of scientific facts in medicine, the pioneers, the victims of research, the great surgeons of the world, have all belonged to the medical profession, now organized into national bodies in all civilized countries. International congresses for humanitarian purposes of study and the advancement of science have been brought about by them. Crowned heads have honored men in the ranks of the profession, but the daily newspapers of the Southern metropolis have classed us as "wolves in sheep's clothing," as "cats sitting in judgment over mice," and by other like graceful epithets. We can rest upon the history of the profession and feel that such animosity is born only of spleen. We have survived many of the parasites which have beset us and the opportunities in modern civilization for evanescent outgrowths of an almost certain charlatanry will continue. The public really demands such things in its present state of education and we can only live on and hope on that the education out of such a questionable need may grow as it does with children who often persuade themselves that the noxious things are good.

Health Instructions for the Public.

It was quite gratifying to have public mention made of the educational movement in health matters in Louisiana in the address of the President of the A. M. A. at the Chicago meeting. It is true that recently Louisiana has anticipated a general movement of this sort and as long ago as 1898 held a sanitary conference which

in reality was a gathering for educational purposes. Since then a number of similar meetings have taken place and the public has benefited. No small credit is due Dr. Fred J. Mayer, Special Medical Inspector of the Board of Health, as he has been most energetic in all of these matters and his personal endeavor has gone far towards establishing some system in the methods employed.

The ancient function of the Board of Health has grown into a real usefulness and the fields of the future will include not only the recording of vital statistics but the actual care in the education of the public in all matters pertaining to health.

This education grows more and more necessary as the evils of civilization increase and as the dangers to public health arise. Already the public is active in endeavors against tuberculosis; the mosquito is now a combatible foe; the war on rats as breeders of the plague flea has begun throughout the world and the vaccination against smallpox is universal. It is the dissemination of the knowledge of these things which must make a respect for the profession which has inaugurated them and which has exploited them, and as the purposes of this sort of education grow more and more manifest, the people themselves will demand some organized educational methods.

Just now millions of dollars are spent by the Agricultural Department of the United States Government in studying and combatting diseases of animals and of plants, but as yet the human being meets small consideration. Preventive Medicine must grow to be the strongest lever to perfect health and the time is at hand when the National Congress must so recognize this element in the public welfare as to provide for it by a central bureau of health administered by a high officer, cabinet officer preferred, who will see that the public learns to take care of itself.

The Medical Bill.

Notwithstanding the clamor of the newspapers and the indifference of the public, as well as many of the profession, the bill proposed by the Louisiana State Medical Society to amend the existing law regulating the practice of medicine was passed by the Legislature at the session which closed last month. Success was achieved after a hard fight on the part of the president, the standing and the auxiliary committees on legislation, and a few zealous mem-

bers of the Society, including the medical members of both branches of the Legislature.

The Bill known as the Labbé Bill, after its distinguished introducer, the Honorable T. J. Labbé, of St. Martin, was passed in the Senate by a vote of 33 to 3, and in the House by a unanimous vote of those recorded. It was duly signed by the Governor and has become Act 244 of 1908.

Several unimportant amendments were either proposed or accepted by the proponents of the Bill, and one objectionable one was injected into it in the House, the one exempting from its provisions the osteopaths, on the same footing as the dentists.

At the same time, the osteopaths succeeded in having passed a Bill regulating themselves, a badly drawn measure which tends to lower the standard of practitioners of the healing art if for no other reason than that their board must accept graduates of osteopathic colleges without examination.

On the other hand, the Labbé Bill improves the law on several important points, the chief of which are: a stricter definition of the practice of medicine; provision for possible reciprocity; choice between the civil and the criminal process in suing violators of the law; a penalty clause for the illegal practice of midwifery; requirement of qualification on the part of all members, assistants, and employees of advertising medical concerns; procedure for revocation of license for crime or gross unprofessional conduct.

All in all, the amended law is one of the best in the United States, and will be a factor for good long after osteopathy and other fads have come and gone.

It is a source of satisfaction to THE JOURNAL that the newspapers, with all their malicious arguments, frequently based on inaccurate (!) propositions, with all their pleadings and twistings, and even threats, made precious little impression on the legislators. It was amusing to note how the city dailies and the country weeklies viciously attacked many provisions of the Bill, some of which were merely reiteration of clauses of the law already in force for fourteen years, and declared constitutional by the Supreme Court of Louisiana, yet carefully refrained from mentioning the clauses which give some hold on the quacks, those clauses which at heart they detested most and were the reason for their opposition.

The State Society is to be congratulated for having accomplished much under great difficulties.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of DR. P. MICHINARD and DR. C. J. MILLER, New Orleans.

THE TREATMENT OF ECLAMPSIA.—E. Bumm (*Deutsche Medizinische Wochenschrift*) states that the causes of eclampsia are unknown; therefore our therapy is purely empiric and symptomatic. In the very severe forms of the disease, about 2 to 3 per cent of all cases, we stand practically powerless. Fatal cases show chiefly widespread necrosis in the liver and kidneys. Severe types are also recognized by the early onset of deep coma, fever hemoglobinuria, or complete urinary suppression; icterus is frequently noted. Whether the cause is ascribed to the fetus, to the placenta, or to reflex disturbances from the genitals or compressed ureters, the indication for early emptying of the uterus remains pre-eminent, and the mortality after early interruption of pregnancy is small. The onset is rarely sudden. Premonitory nephritis with scant, highly albuminous urine and casts, general edema, signs of general intoxication, headache, vomiting, dizziness, eye symptoms—precede the actual attack. Emptying of the uterus in this stage affords prompt relief. After accouchement forcé following the first attack, the mortality in Bumm's hands has been 2 to 3 per cent; when this measure is postponed it reaches 25 to 30 per cent. Where the eclampsia manifests itself during the second stage, after the cervix has become partially absorbed, complete dilation may be rapidly obtained by the Bossi instrument or by rubber balloons. If the cervix is long and rigid, splitting the anterior cervical wall permits of delivery within ten minutes. The day for the use of large doses of chloral and morphin has passed. When the sensorium is unaffected, and general irritability increased, moderate doses of narcotics by rectum are of some use; but if coma has developed or is threatened these drugs are directly harmful by depressing the heart and respiratory action still further and thus hastening the advent of pulmonary edema. Chloroform anesthesia, lumbar anesthesia and lumbar puncture have all been tried and have all been found useless or harmful.

Vassale recently recommended parathyroidin; further trial is necessary before definite judgment can be formed.

The ordinary kidney stimulants appear powerless. The best found are large subcutaneous infusions (1,500 c. cm.) of salt solution, local applications of heat to the kidney and frequent kidney massage. Edebohl's kidney decapsulation is *sub judice*.

It is difficult to determine the proper time to use it. Hot packs or baths in cases verging on coma do harm by increasing temperature. Pilocarpin injections should be discarded; they increase the tendency to pulmonary edema. Stimulation of the respiratory and heart action indicated. Respiration has a tendency to become superficial and unless the upper air passages are kept clear, by frequent cleaning of the pharynx, aspiration pneumonia supervenes. Bumm has tided patients over the crisis by long continued artificial respiration and heart massage. Where the pulse is full and rapid venesection proves useful.—*Amer. Jour. of Surgery*, Feb., 1908.

C. J. M.

TWELVE CASES OF MASTITIS TREATED BY SUCTION APPARATUS—Fr. Hartmann (*Münch. Med. Work*, 1907) details the treatment of 12 cases of mastitis of various degrees of severity by means of Bier's suction apparatus, with excellent results. He states that the bad results reported under treatment are due to failures in technique. One mistake made is to use too small a bell glass. The glass should be 12 or 15 centimeters in diameter and should cover almost the whole breast.

A small incision should be made over the abscess if pus has already formed, since suction alone will not cause a collection of pus to be absorbed. If pus has not already formed the focus may be dissipated. If too small a glass is used severe pain will be caused, also irritation of focus of infection. The sitting should be about one-half an hour in length, and suction should be applied for five minutes at a time with three to five minute pauses between, and reapplications should be made four to five times. Milk should be emptied out of the gland afterward by a small glass. The sound breast should be nursed by the infant. The results of treatment should be relief of pain and fever, disappearance of fresh foci without incision in three to five days. If pus has formed, with incision, they should heal in one to two weeks quicker

than under any other surgical treatment. The cosmetic results are good. The subacute, indurated forms are not suitable for suction treatment, but are better treated by pressure and massage. Old cases which have ruptured spontaneously are longest in healing. Suction permits of a better localization of the point for incision.

Drainage is generally unnecessary, except when the abscess is very deep and narrow. Pressing on the abscess should be avoided as harmful. The wounds heal rapidly by granulation. (From extract *Amer. Jour. Obst.*)

This method has been employed in three cases recently by the reviewer, with the most satisfactory results. In one case one application was necessary to localize an extensive abscess and permit prompt drainage. A small incision allowed for drainage and easy removal of the entire contents of the pus pocket. The final scar was in marked contrast to the large painful scars following free incision and drainage.

C. J. M.

Department of Internal Medicine.

In charge of DR. E. M. DUPAQUIER, New Orleans.

NERVOUS AFFECTIONS OF THE HEART—Every lecture on a clinical subject should conclude with a consideration of therapeutics, since all our efforts, scientific research as well as practical work, are directed toward the single aim—to help sick mankind. In the case of true nervous cardiac affections it may be said that treatment which is directed toward the heart itself almost never results in benefit. Indeed, digitalis, caffein, strophanthus and other similar remedies rather do harm than good and they are not able to diminish the increased heart rate and palpitation. Yet there is an exception to this rule; if a primary nervous cardiac disease has finally led to actual cardiac insufficiency, to dilatation, edema and arterioxlerosis, then the above named remedies, and especially also the diuretics, prove of great value.

The treatment of the true nervous cardiac diseases must be directed exclusively against the general nervous condition, and particularly we must try to remove its cause, whether it be overwork

or indulgence in excitement of any kind. Above all, we have to remove the patient from the environment, the "milieu," which has provoked nervousness, and that is very often his own family. A sojourn in an agreeable and quiet country place may be of the greatest benefit. High altitudes, such as Switzerland or the Tyrolese mountains especially, are apt to bring great improvement, while the seashore, on the contrary, often proves to have no good influence. The study of climatic influences deserves much attention. Altitude in particular has a most wonderful effect on the heart, the blood vessels and the blood itself, and individuals with nervous constitutions and with cardiac and vascular diseases are very markedly affected by it. It is not wise to send nervous patients to watering places like Nauheim and to treat them with such measures as carbonic acid baths or alternating electric currents. Such "cures" should be avoided because they prove more exciting than calming, and because they direct the patient's attention too much to his heart, and bring him to the fixed idea that his fears of an organic cardiac disease are correct, and that the doctor speaks of nervous affection only to console and deceive him. Very often we see that a nervous and hypochondriacal patient distrusts the physician who simply and truly declares that the heart is normal and the whole trouble a nervous or imaginary one, and much prefers to believe the one who says the heart is seriously attacked, who strengthens the patient's fears and undertakes long and strenuous cures not at all to the patient's benefit. Sometimes in such cases of hypochondriacal ideas it proves useful to outline the size of the heart by orthography with Röntgen rays, and to convince the patient from this diagram with the centimeter scale that the pretended dilatation is absent. But, when we succeed in winning the confidence of our patient we must try to turn his attention away from his heart, to raise other interests and thoughts. For this purpose carefully directed muscular work, gymnastic exercises, walks, and even a little mountain climbing and every kind of outdoor treatment, are most useful. For in the true nervous cardiac affections muscular exercise has not a harmful but a good influence on the heart. Per contra, rest cures which are of benefit in every organic cardiac failure do harm to the nervous heart, really weakening it and making it more and more unfit to adapt itself to any strain. Eventually we may be able

so to educate our nervous patient that he learns to keep his feelings and emotions under proper control. This stage once reached he may also be able to command to a certain extent the involuntary emotional movements, excitements and reflex actions of his inner organs so that he may no longer be a victim of their effects. (Friedrich Müller, M. D., Munich, Germany, in *The Archives of Internal Medicine*, vol. 1, No. 1. Jan. 15, 1908.)

Department of Ear, Nose and Throat.

In Charge of A. W. deRoaldes, M. D., and Gordon King, M. D.
New Orleans.

THIOSINAMIN IN THE TREATMENT OF HYPERTROPHIC OR ADHESIVE OTITIS MEDIA—To the conscientious aurist the advent of any method of treatment bearing the stamp of authoritative approval and proclaimed as beneficial to deafness is hailed with interest. Lermoyez and Mahn in the December number of the *Annales des Maladies de l'Oreille*, have reported their very instructive experience with thiosinamine in the treatment of adhesive otitis, which throws the light of hope upon a condition generally considered an incurable form of deafness. These enterprising clinicians have succeeded by painstaking and systematic pursuit of the subject in bringing to light the fact that thiosinamine, when applied locally in cases of adhesive otitis, will in a measure reduce the immobility of the delicate ossicular chain and bring about a considerable degree of improvement in hearing. Thiosinamin has a peculiar predilection for cicatricial tissue either when applied locally or given hypodermatically the effect being to soften the fibrous tissue and render mobilization possible without violence. In deafness due to adhesive lesions of the middle ear from suppuration, catarrhal inflammation or traumatism a solution of thiosinamin 15% is instilled into the ear canal or blown into the eustachian tube daily and followed by inflation of the middle ear and tympanic massage, and in most of the cases treated by these authors there has been material improvement in the hearing power. The best results were obtained in those cases where an old perforation existed in the tympanum and the solution could be applied directly to the cicatricial lesion; however, good results were obtained by

simply dropping it into the ear canal when the drum was intact.

Deafness due to sclerosis of the middle ear and labyrinthine lesions are excluded from the class where improvement can be obtained. With the exception of some local irritation sometimes produced, no ill-effects were observed from the treatment.

In a form of deafness otherwise hopeless this method is well deserving of a fair trial.

Louisiana State Medical Society Notes.

In Charge of DR. E. M. HUMMEL, Secretary, New Orleans.

MINUTES OF THE TWENTY-NINTH ANNUAL SESSION.

HELD AT ALEXANDRIA, LA., MAY 12-14, 1908.

(Continued.)

DR. P. L. THIBAUT then read the

“ANNUAL REPORT OF SECRETARY.”

Alexandria, May 12, 1908.

TO THE OFFICERS AND MEMBERS OF THE LOUISIANA STATE
MEDICAL SOCIETY.

GENTLEMEN: The items of interest which have come through the office of your Secretary were published monthly in the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, under the heading of “Louisiana State Medical Society Notes.”

In presenting this report I will avoid unnecessary details and treat only those subjects which are of paramount importance.

Of the 59 parishes in the State, 37 are organized into 36 Parish Societies. In 7 parishes (Cameron, East Carroll, Jefferson, Livingston, St. Bernard, St. Helena and West Carroll) organization is not possible by reason of the small number of eligible physicians residing therein. The 15 remaining (Acadia, Caldwell, Concordia, East Feliciana, Iberia, Jackson, Madison, Pointe Coupee, Richland, St. Martin, St. Mary, St. Tammany, Union, Washington, West Carroll and West Feliciana) have all at some time been organized, but have gradually allowed themselves to be dropped. In some of these parishes the absence of organization may be due to the apathy of the physicians, while in others we

must blame the bad condition of the roads and the lack of railroad facilities. In this connection I wish to commend the action of the physicians of the Western portion of Catahoula Parish. These gentlemen, finding it impossible to affiliate with their confreres of the Eastern portion, for the reasons given above, applied to the State Society at its last meeting for the privilege of organizing a society, to be known as the Western Catahoula Parish Medical Society. They now stand organized with a membership of 15, including every eligible physician in that section.

It is to be hoped that such a good example, followed by the sound advice of Dr. P. N. McCormack, General Organizer of the A. M. A., who recently made a tour of the State, will bear fruit and that we will soon have on our roster every available parish.

I have herewith attached a table showing the organized and unorganized parishes in each Congressional District, and also the relative number of members in each parish for the years 1907 and 1908. These tables show no increase in the number of component societies, but a slight increase in the paid up membership, in spite of the fact that nearly two hundred members have not as yet paid their dues.

Eleven scientific papers remaining from the 1906 proceedings, together with the transactions of 1907, were published in our official organ, the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL*. We take this opportunity of thanking the editors, Drs. Chassaignac and Dyer, for their co-operation.

Our vertical file system of handling correspondence and the stub and voucher systems are the same as the preceding year and have been found satisfactory.

Our worthy President, Dr. Oscar Dowling, has compiled a list of over 1,900 physicians in the State, giving all necessary information, such as post office address, college and year of graduation, etc. This will enable us to revise our card index, which is in sad need of it.

I desire to thank the President for his support at all times.

Our genial Assistant Secretary, Mr. George Augustin, has rendered efficient service.

Dr. C. J. Gremillion, Chairman of the Committee on Arrangement, has given himself a great deal of trouble in providing for our comfort and entertainment. That his efforts have been crowned with success, you may judge for yourselves.

In conclusion, I wish to thank the officers and members of this Society individually and collectively for the cordial relations which have made my task a pleasant one.

Respectfully submitted,

(Signed) P. L. THIBAUT, M. D.,
Secretary.

APPENDICES TO SECRETARY'S REPORT.

PAID UP MEMBERSHIP IN EACH PARISH FOR THE YEARS 1907
AND 1908.

ORGANIZED PARISHES.

	1907.	1908.
Ascension	11	9
Assumption	7	8
Avoyelles	26	25
Bienville	15	12
Bossier	14	13
Caddo	40	42
Calcasieu	18	41
Catahoula	5	20
Claiborne	10	20
DeSoto	13	14
East Baton Rouge	23	20
Franklin	8	10
Grant	8	9
Iberville	18	13
Lafayette	16	17
Lafourche	9	13
Lincoln	11	10
Morehouse	13	14
Natchitoches and Red River (Bi-Parish).....	12	13
Orleans	252	268
Ouachita	10	15
Plaquemines	6	4
Rapides	24	29
Sabine	1	5
St. Charles. (See St. John.).....		
St. James	15	15
St. John (St. John—St Charles Bi-Parish).	10	11
St. Landry	23	20
Tangipahoa	12	9
Tensas	10	12
Terrebonne	3	6
Vermilion	4	13
Vernon	20	12
Webster	8	9
West Baton Rouge	7	3
Winn	6	7

REMARKS.

Catahoula has now two societies, one in the eastern portion and one in the western part. This accounts for the large increase in membership in that parish.

Calcasieu has shown remarkable energy, having a gain of 23 over last year.

Claiborne also shows a healthy increase.

Terrebonne has reorganized.

East and West Feliciana, and St. Tammany, which were organized last year have made no reports this year, members paying individually.

UNORGANIZED PARISHES.

	1907.	1908.
Acadia	0	2
Caldwell	0	0
Cameron	0	0
Concordia	0	0
East Carroll	1	1
East Feliciana	14	9
West Feliciana	5	3
Iberia	5	4
Jackson	2	1
Jefferson	1	1
Livingston	1	1
Madison	1	1
Pointe Coupee	2	6
Richland	3	2
St. Bernard	0	0
St. Helena	1	1
St. Martin	0	0
St. Mary	3	6
St. Tammany	11	1
Union	0	0
Washington	0	1
West Carroll	1	2
"At Large"	5	2

ORGANIZED AND UNORGANIZED PARISHES, MAY 1, 1908.

District.	Organized Parishes.	Total.
First.—	Orleans, Plaquemines	2
Second.—	St. Charles, St. James, St. John	3
Third.—	Assumption, Lafayette, Lafourche, Terrebonne, Vermilion	5
Fourth.—	Bienville, Bossier, Caddo, De Soto, Natchitoches, Red River, Sabine, Webster, Winn.....	9
Fifth.—	Catahoula (two societies, by permission of Society), Claiborne, Franklin, Lincoln, Morehouse, Ouachita, Tensas	7

Sixth.—Ascension, East Baton Rouge, Iberville, Tangipahoa, West Baton Rouge.....	5
Seventh.—Avoyelles, Calcasieu, Grant, Rapides, Vernon, St. Landry	6
Total	37

District.	Unorganized Parishes.	Total.
First—St. Bernard		1
Second.—Jefferson		1
Third.—Iberia, St. Martin, St. Mary		3
Fourth.—All Organized		0
Fifth.—Caldwell, East Carroll, Jackson, Madison, Union, West Carroll, Concordia		7
Sixth.—East Feliciana, West Feliciana, Livingston, Pointe Coupee, St. Helena, St. Tammany, Washington.....		8
Seventh.—Acadia, Cameron		2
Total		22

DR. JULES LAZARD read the the following annual report of the treasurer:

Alexandria, May 12, 1908.

TO THE OFFICERS AND MEMBERS OF THE LOUISIANA STATE
MEDICAL SOCIETY.

GENTLEMEN—In accordance with the By-Laws, I beg to submit the following Annual Report:

Balance, May 13, 1907	\$1,560 28
Dues, 1907-1908	2,654 50
Cash on hand	18 00
	<hr/> \$4,232 78

EXPENDITURES.

Salaries	\$1,045 00
Rent	130 00
Stationery and Printing	155 71
New Orleans Surgical and Medical Journal	1,126 25
Exchange paid on country checks	13 75
Sundry expenses	151 80
Postage	83 29
	<hr/> \$2,705 80

Balance May 9, 1908

\$1,526 98

Respectfully submitted,

(Signed) JULES LAZARD, M. D.,

Treasurer.

(To be Continued.)

PARISH SOCIETY MEETINGS.

THE WESTERN CATAHOULA PARISH MEDICAL SOCIETY held the regular meeting at Trout, La., on July 1, at 7:30 p. m., with a fair attendance. In the absence of Dr. Packer, the essayist for the evening, Dr. E. R. Harrington read a paper on "Chronic Catarrhal and Other Forms of Chronic Gastritis." The paper was discussed at length by Drs. Thompson, Coleman and Butler. The next place of meeting will be at Jena, La., on September 2, 1908, at 1 p. m. Our society was chartered on March 19, 1908, and has a membership of seventeen. Essayist and subject of essay for the next regular meeting will be announced at a later date.

T. M. BUTLER, Secretary.

SPECIAL NOTICE.*To the Members of the Louisiana State Medical Society:*

At the last annual meeting of the Society at Alexandria, the question of the duty of physicians in the matter of reporting births and deaths was brought up, and after a full discussion of the subject, it was the sense of the members assembled, that properly kept vital statistics are greatly needed in our State. Such statistics, as presently kept, are incomplete, and, as pertains to the State at large, worthless. Those wishing to make investments within our State or desiring to make their homes here, are constantly addressing inquiries to our health authorities regarding these matters. Heretofore and presently these authorities are unable to supply such information because births and deaths are not properly reported. In the absence of statistics, life insurance companies are claiming that our mortality is unusually high, and advance their rates accordingly. Likewise, the opinion prevails generally, that health conditions in Louisiana are worse than they really are. There being no definite records it is impossible to refute such allegations. These and similar instances serve to emphasize the great economic importance of accurately kept vital statistics to a State. The law on the question makes it obligatory on all physicians and midwives throughout the State to file with the Health Officer of their respective parishes a quarterly record of the births and deaths which have occurred in their practice, stating causes of death. In parishes which have no parish health officer these records must be filed

with the Coroner. Violation of the provisions of this law is made a misdemeanor, punishable by a fine not to exceed \$50.00, or imprisonment for not more than sixty days, or both, at the discretion of the court. Through indifference and neglect, the law has not been enforced or obeyed.

In obedience to a motion adopted at the meeting, the Secretary submits this question to the members, and in the name of the Society, urges that physicians throughout the State obey this important statute, in order that our public archives might be supplied with much needed and important information.

INTERNATIONAL CONGRESS OF TUBERCULOSIS MEETING.

To the Members of the Louisiana State Medical Society:

The International Congress of Tuberculosis meets in Washington, D. C., September 21 to October 12, 1908. In accordance with a Resolution adopted at the last regular meeting of the Louisiana State Medical Society, the present notice is called to the attention of the members; and those members who may wish to attend the Congress are hereby requested to notify the Secretary of this Society.

Medical News Items.

REVISION OF THE INTERNATIONAL CLASSIFICATION OF CAUSES OF DEATH.—The Department of Commerce and Labor, through its Census Bureau, has issued a circular from which the following is abstracted. The Chief Statistician, Dr. Cressy L. Wilbur, is anxious to gather any suggestions that he can, and may be reached at the Census Bureau.

“The International Classification of Causes of Death, which is intended for the purposes of morbidity and hospital returns, as well as for mortality statistics, will be subjected to its second decennial revision next year. This system, formerly known as the ‘Bertillon system,’ was recommended by a committee of the International Statistical Institute during its session at Chicago in 1893.

“It is employed by the United States Bureau of the Census, by all registration States, and by nearly all registration cities in the United States. Every country in North and South America

has adopted it, and it is used by Japan, and by France, Spain, Holland, Belgium, Greece, Bulgaria and other European countries. It has also recently been adopted, after careful comparison with the system formerly in use, by the Bureau of Census and Statistics of the new Commonwealth of Australia.

"Copy of a pamphlet on 'Relation of Physicians to Mortality Statistics,' containing an outline of the classification, will be sent by the Director of the Census to any physician upon request, and he will be pleased to receive any suggestions for the revision of the classification which he will submit to the co-operating committee and to the International Commission."

SURGEONS OF THE P. H. & M. H. SERVICE.—Examinations for Assistant Surgeons in this service will be held on Monday, September 14, 1908, at 10 o'clock a. m., at the Bureau in Washington, D. C. Candidates must be between 22 and 30 years of age, graduates of reputable medical schools, and must furnish testimonials from responsible persons as to their professional and moral character. Successful candidates will be numbered according to the results of examination, and will be commissioned in this order as vacancies occur. Assistant Surgeons will receive \$1,600; Past Assistant Surgeons, \$2,000; Surgeons, \$2,500 a year. The usual prerequisites prevail and the tenure of office is permanent. Further information may be had on application to the Surgeon-General, Public Health and Marine Hospital Service, Washington, D. C.

THE SOUTHERN MEDICAL JOURNAL, now some time announced, has made its initial appearance with the July number. The editorial staff is made up of a group of distinguished gentlemen in the profession of Nashville, with Dr. J. H. Witherspoon as Editor-in-Chief. The principal cities in the South are represented on the collaborating list, and for New Orleans the names of Drs. Matas, Parham and Miller appear. This journal is specifically announced as the organ of the Southern Medical Association, which was born last year, and of which Dr. Oscar Dowling, of Shreveport, Louisiana, is the Secretary.

The appearance of the first issue of this new publication is entirely creditable to its originators, as well as to the publishers. A neat cover of quiet color carries the names of, first, the Jour-

nal, and, then, the editorial staff and collaborators in the various districts. The arrangement of the matter is original and the articles which are contributed are all of very good class. The introductory editorial proclaims a stand for clean advertising, and appeals to the profession of the South for the support of its venture.

THE EDWARD N. GIBBS MEMORIAL PRIZE.—This prize for \$1,000 will be awarded to the author of the best essay on "The Etiology, Pathology and Treatment of the Diseases of the Kidney," and essays must be presented on or before October 1, 1909. Essays accompanied by sealed envelope bearing the same motto or device, and containing the name and address of the author. No envelope will be opened except that which accompanies the successful essay.

The New York Academy of Medicine, which determines the prizes, reserves the right, in accordance with the direction of the donors, to withhold the prize if no essay is deemed worthy. The original of the successful essay shall be the property of the Academy and will be published in its transactions. Competing essays should be sent to the Committee of the New York Academy of Medicine on the Edward N. Gibbs Memorial Prize, New York Academy of Medicine, New York City.

THE SAMUEL D. GROSS PRIZE.—This prize is awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize, shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page, it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 219 S. 13th St., Philadelphia," on or before January 1, 1910."

Each essay must be typewritten, distinguished by a motto, and

accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

ROUTES TO THE PAN-AMERICAN MEDICAL CONGRESS.—Dr. Ramon Guiteras, 75 West Fifty-fifth street, New York, Secretary of the International Executive Committee of the Fifth Pan-American Medical Congress, has issued a circular of information regarding the cost of transportation and the methods of reaching the place of meeting, Guatemala City, Central America, where the congress is to take place from August 5 to 10, 1908. The cost of a ticket from New York to Guatemala City will be \$56 by rail to New Orleans, steamer to Puerto Barrios, and rail to Guatemala City. If desired the return may be made by San José and the City of Mexico at a considerable increase in the cost. The city of Guatemala is situated on a plateau a mile above sea level and the weather is always delightful there during August.—*Ex.*

COUNTY SOCIETY USES LOCAL NEWSPAPERS.—The Jefferson County (Texas) Medical Society has begun the publication in the newspapers of popular articles on medicine. The *Beaumont Enterprise* for Sunday, June 28, contains an excellent article, signed by the Jefferson County Medical Society, on "The Progress of Medical Science," wherein the development of medicine from earlier times to the present is briefly but interestingly summarized. Such articles published impersonally by a society for the benefit of the people of the county can not fail to be of great educational advantage.—*Ex.*

SPECIAL TRAINING FOR ATTENDANTS IN INSTITUTIONS FOR THE INSANE.—A novel and interesting educational experiment is to be inaugurated this summer by the Chicago School of Civics and Philanthropy. Under the leadership of Miss Julia Lathrop, for many years a member of the Illinois State Board of Charities, and now director in this

school, a summer course has been arranged for attendants in institutions for the insane and mentally defective. The course has been planned with skill and originality, the object being to show the educational value of occupation, and to afford practical training in those handicrafts which are familiar in kindergartens and manual training schools. In addition, lectures are offered on the elements of psychology, pedagogy and psychiatry and on sociologic subjects. Thus the attendant is to be given training which will fit him to undertake new and important duties in the care of the insane, making of him a teacher and not merely a custodian.

1 RELIGIOUS JOURNALS AND NOSTRUMS.—The editor of the *Gesundheitslehrer*, in commenting on the fact that a certain religious journal devotes one-third of its advertising to advertisements of unsavory "patent medicines," remarks: "What would the religious journals say if the medical journals were to devote one-third of their advertising space to announcements of things known to be directly contrary to all the teachings of the church?"—*Ex.*

APPLICATION OF TINCTURE OF IODIN IN THE DARK.—In the *British Medical Journal* for November 16, 1907, J. Dunbar-Brunton describes a peculiar property of iodine. If the tincture of iodine is painted on the skin in the dark, or is exposed only to a red light, such as is used in photography, and is covered immediately without being exposed to a white light, it will be absorbed with much greater rapidity than under ordinary circumstances, and it is said not to discolor or blister the skin, even if used for long periods.—*Medical Council.*

NEW HEAD FOR THE RED CROSS SOCIETY.—Ernest P. Bicknell, who has been appointed National Director of the American National Red Cross Society, served for five years as Secretary of the Indiana State Board of Charities, during which time he brought about several important reforms, both in the charity work and in the penal system of the State, introducing the indeterminate sentence and the parole. Mr. Bicknell also had charge of the Chicago Bureau of Charities for some years, taking active part in the investigations of the County Hospital and serving as a member of the present commission charged with the building of a new Cook County Infirmary and Tuberculosis Hospital. Mr. Bicknell showed distinguished ability in work of relief at San Francisco, where he went

to represent the Chicago Relief Committee, which contributed \$700,000 to the relief fund, and it was while there that he evolved the idea of making charity organizations generally auxiliary members of the American National Red Cross Society, with the view to giving a nucleus of trained relief workers who could be called upon for immediate service in case of emergencies. It is announced that this plan will at once be put into effect.—*Ex.*

TENTH ANNUAL MEETING OF THE AMERICAN PROCTOLOGIC SOCIETY.—The tenth annual meeting of the American Proctologic Society was held at Chicago on June 1 and 2, 1908, the President, Dr. A. Bennett Cooke, in the chair. The following officers were elected for the ensuing year: President, Dr. George B. Evans, Dayton, Ohio; vice-president, Dr. John L. Jelks, Memphis, Tenn.; secretary-treasurer, Dr. Lewis H. Adler, Jr., Philadelphia, Pa. Executive Council: Al. B. Cooke, M. D., Chairman, Nashville, Tenn.; George B. Evans, M. D., Dayton, Ohio; Samuel T. Earle, Jr., M. D., Baltimore, Md., and Lewis H. Adler, Jr., M. D., Philadelphia, Pa. Atlantic City was selected as the place of meeting for 1909, the dates May 31 and June 1. The JOURNAL will probably have the opportunity of presenting, from time to time, abstracts of the principal papers read.

THE SCIENTIFIC EXHIBIT OF H. K. MULFORD & Co. at the recent annual meeting of the A. M. A., at Chicago, illustrating various curative sera, vaccines, etc., is now part of the permanent museum being developed in connection with their scientific department and school of instruction.

THE PROHIBITION OF THE USE OF OPIUM IN THE PHILIPPINE ISLANDS became absolute, except for medical purposes, March 1, 1908. This caused an enormous increase in the number of opium habitues desiring hospital treatment and the Government was compelled to use some of the wards of the new Insane Department at San Lazaro Hospital, for their accommodation. In all, 307 patients were admitted, and of this number 260 have been discharged as cured. The majority seemed to be really desirous of being rid of their affliction, and every facility is being given them to that effect.

ORDINANCE PASSED BY ALABAMA STATE MEDICAL ASSOCIATION.—The Alabama State Medical Association at its last meeting,

passed an ordinance establishing a Council on Nosology, a Council on Pharmacy, and a Council on Scientific Study, each to be composed of five members appointed by the President.

SANITARY REGULATIONS FOR NEW IBERIA.—The new Board of Health officer, Dr. Robert F. Derouen, has issued a circular to property-holders regarding sanitary regulations. He promises a most energetic campaign and declares his intention to place New Iberia in first-class sanitary condition, in which he will have the hearty coöperation of the citizens. Dr. Derouen has just recently been elected to succeed Dr. W. J. Emmer, resigned.

TULANE NOTES.—Dr. Wm. A. Evans graduated from Tulane in the 80's, and former Health Commissioner of Chicago, has recently become associated with the Northwestern University, of Chicago, as Professor on Sanitary Science, etc. Dr. Evans has taught pathology at the College of Physicians and Surgeons of Chicago for several years, and has become distinguished in the profession of that city. His acceptance of the position at the Northwestern University is considered a feather in the cap of the school.

Dr. George Dock, for several years professor of Medicine at the University of Michigan, has accepted the chair of Theory and Practice of Medicine and Clinical Medicine at Tulane.

The Newcomb Alumnae Association announces that it has established an Employment Bureau, with similar offices to that established by the General Alumni Association. It is the intention of this new movement to provide teachers, governesses, and also to stimulate interest in the work done in the Newcomb Art Department. A letter to Mrs. E. F. Harvey, Secretary, Employment Bureau at Newcomb College, New Orleans, La., will bring full information.

PERSONALS.—Dr. Homer Dupuy will spend the month of August visiting the hospital clinics in the Eastern cities.

Dr. E. O. Barker is editor of the new journal published by the Oklahoma State Medical Association from Guthrie. Volume One, No. 1 was issued in June and makes a fine appearance.

Dr. George S. Bel has been reappointed as member of the Board of Administrators of the Charity Hospital.

Dr. S. G. Hines, of the Class of 1908 at Tulane, has located in Hammond.

Dr. A. A. Aucoin, of Plattenville, La., was elected Coroner and Health Officer at a salary of \$75.00 per month.

Dr. J. H. DeGrange and family left during the past month for an Eastern trip.

Dr. and Mrs. Paul L. Reiss have gone to Europe on a vacation.

Dr. Loeb, of the University of California, and Dr. S. C. Minot, of Boston, have been appointed corresponding members of the Physico-Medical Society of Vienna. The appointments were made on the one hundredth anniversary of the founding of the society.

Drs. Matas, Bickham and Landry are occupying offices in common at No. 3523 Prytania street.

Dr. Sam Logan is spending his vacation visiting the clinics in the North and East.

It will be welcome news to our readers that Dr. R. Matas, who has been invalided on account of a severe ophthalmia in one eye, is now thoroughly convalescent, and that he will, before long, be able to resume active occupation.

KENTUCKY SCHOOLS UNITE. The daily newspapers announce an amalgamation of the Louisville and Hospital College of Medicine, the Kentucky School of Medicine and the University of Louisville, under the name of the University of Louisville. The respective faculties will be adjusted so as to make a total teaching staff of about 75. It is stated that the present buildings of the several colleges will be all used in the teaching.

SCHOOL OF PHARMACY AT THE UNIVERSITY OF MISSISSIPPI. The University of Mississippi announces a School of Pharmacy to begin on September 24. This new department will be in charge of Prof. H. M. Faser, who is recognized as one of the ablest pharmacists in the State.

VISITING PHYSICIANS.—Among the visiting physicians during the past month were Dr. T. M. Murchison, of Mexico City; Dr. W. H. Brent, of Natalbany, La., and Dr. J. H. Dillon, of Many, La.

REMOVALS.—Dr. C. T. Deloach has moved from Cotton Valley to Coldwater, La. Dr. R. C. Campbell from Shreveport, La., to Mena, Arkansas. Dr. R. H. Gullede from Benton to Shreveport, La. Dr. W. M. McGalliard from Donaldsonville to San Mateo,

California, and Dr. D. W. Kelly from Selma to Winnfield, La. Dr. W. C. Middleton has moved to Loring from Many, La. Dr. T. D. Boaz from Shreveport to Lake Charles, La.

MARRIED.—Dr. William L. Wise to Miss Edna Sorelle, both of Lena, La., were married on June 2, 1908.

DIED.—Dr. T. M. Calnek died in San José on June 21, 1908. Dr. Calnek had lived in Costa Rica for several decades, and for many years had been Chief Health Officer of the Republic. The admirable sanitary condition of the port and interior towns of Costa Rica is largely due to Dr. Calnek and his untiring efforts.

Dr. J. J. Washington died on July 8, 1908, at his home at Pass Christian, Miss., aged 56 years.

Dr. Frank Savoy died at Eunice, La., at the age of 40, on July 19. He was a graduate of Tulane, and leaves a wife and several children to mourn his loss.

OBITUARY: Dr. B. A. Pope died at his home, in New Orleans, July 18, at the age of 42. Dr. Pope leaves many friends, who regret his demise. His excellent training as a student and his earnestness in his work promised much for him. His taking off at the best period of his career is sad for all who knew him. The JOURNAL extends its earnest condolence to his bereaved family.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Electrical Treatment. By WILFRED HARRIS, M. D., F. R. C. P. W. T. Keener & Co., Chicago.

Besides an excellent presentation and definition of the mechanics of electrical treatment, this handbook very entertainingly discusses particular conditions as affected by the various forms of electrical application. Not only does this cover local, but general conditions also.

This is one of a series of works on modern methods of treatment, and in this particular work both the publisher and author have earned a deserved credit.

DYER.

Cosmetic Surgery. By CHARLES C. MILLER, M. D. Second Edition.

We reviewed the first edition of this brochure and now have to add a word of congratulation upon the numerous additional illustrations and descriptions which make the present edition indeed a practical guide for the correction of many "featural imperfections."

DYER.

The Principles and Practice of Hydrotherapy. By SIMON BARUCH, M. D. Third Edition. Wm. Wood & Co., New York.

The author of this work has been a protagonist of water treatment for many years, and his influence has created a wider interest in the subject in the United States than might otherwise have obtained. That he has set down in a comprehensive text not only his views, but a general idea of the whole subject is altogether a real contribution to the practice of medicine and its knowledge.

The most valuable divisions of the text are contained in the chapters which clearly outline the practical application of hydrotherapy. These give not only exact methods (often illustrated) in general and in particular applications, but indicate results to be expected. As the usefulness of Dr. Baruch's work has already demanded a third edition we can only add our own to the praise of others for the book.

DYER.

Treatment of the Diseases of Children. By CHARLES GILMORE KERLEY, M. D. W. B. Saunders Company, Philadelphia and London.

Aside from its value as a textbook, this work is full of practical suggestions which make it an important adjunct in the library of the physician. No pains are spared in presenting each subject clearly, and all through the work the author makes a point of detail. The chapters on feeding are especially good and exact directions are given for modifying artificial foods for all kinds of babies. Particular diseases are freely discussed; prescriptions are freely given and everywhere illustrations are employed where they can serve. Climate, the abuse of drugs, and the pharmacopeia of infants and children receive their proper space. Altogether the book deserves the highest recommendation.

DYER.

The Functional Inertia of Living Matter, Etc. By DAVID FRASER HARRIS, M. B., C. M., M. D., B. Sc. (Lond.), F. R. S. E. P. Blakiston's Son & Co., Philadelphia. (J. A. Churchill, London.)

A philosophical presentation of the properties of protoplasm, as applied to living matter. Functional inertia is related as an intimate phase of natural processes, as exemplified in the hibernate habits of the plants, etc. The procreative periods of the human being, behavior and profession, are each discussed as cognate with the theme. Even psychiatric phenomena are submitted in point, and the author concludes with the idea that as matter is constituted of activity or inertia, the periods of inertia may be applied as of consequence in the germinal principle which is the determination and prolongation of species. DYER.

Nervous and Mental Diseases for Students and Practitioners. By CHAS. S. PORRS, M. D. Second Edition, Revised and Enlarged. Lea & Febiger, Philadelphia and New York, 1908.

This is the second edition of one of the smaller American books on nervous diseases. The sections dealing with neurology contain good descriptions of all the more important nervous diseases.

Special reference has been made, and justly so, to the work of the Philadelphia neurologists, though that of other American and foreign writers has not been neglected.

The chapters on the neuroses might be fuller. Some 60 pages have been devoted to a description of mental diseases. In such short space a student can be given no adequate idea of this important subject, and as might be expected, the descriptions of the various conditions are short.

The classification leaves much to be desired, as we find that of Kraepelin modified by the addition of many symptom groups Kraepelin himself had tried to eliminate.

The book can, with the exception of these 60 pages, be recommended to students. VAN WART.

The Borderland of Epilepsy. By SIR WILLIAM R. GOWERS, M. D., F. R. C. P., F. R. C. S., etc. P. Blakiston's Son & Co., Philadelphia, 1907.

This little book is a continuation of the author's lectures on nervous diseases. The articles have all appeared in the *Lancet* and *British Medical Journal*, but have been rewritten for the present work.

The book contains descriptions of faints, vertigo, migraine and some unusual sleep symptoms. It contains many observations not to be found in ordinary text books. VAN WART.

Diseases of the Nervous System. Edited by ARCHIBALD CHURCH, M. D. D. Appleton & Co., New York and London, 1908.

This is a translation of the various articles on nervous diseases, written for "*Die Deutsche Klinik*," which appeared in Germany some years ago. The articles have been translated without additions, and as they stand present the opinions of the writers.

In looking over the list one finds the names of many of the best known neurologists in Germany. As might be expected, the articles are uneven, and having been written separately the work is far from complete. For those interested in nervous diseases the book can be recommended as giving the views of men well known in neurology. The work is rather for the student of nervous diseases than for the practitioner of medicine. VAN WART.

Publications Received.

P. BLAKISTON'S SON & CO., Philadelphia, 1908.

Borderland Studies, by George M. Gould, M. D., Vol. II.

The Book of Prescriptions (Beasley), *With an Index of Diseases and Remedies*, rewritten by E. W. Lucas, F. I. C., F. C. S., With Introduction by Arthur Latham, M. A., M. D., F. R. C. P. 9th Edition.

A Text-Book of Human Physiology, Including a Section on Physiologic Apparatus, by Albert P. Brubaker, A. M., M. D. 3rd Edition.

Uric Acid as a Factor in the Causation of Disease, by Alexander Haig, M. A., M. D. 7th Edition.

Outlines of Physiology, by Edward Groves Jones, A. B., M. D. and Robert Grier Stephens, A. B., M. D. 2nd Edition.

LEA & FEBIGER, Philadelphia and New York, 1908.

Modern Medicine, by William Osler, M. D. Assisted by Thomas McCrae, M. D. Volume IV.

J. B. LIPPINCOTT CO., Philadelphia and London, 1908.

International Clinics. Volume II; 18th Series, 1908.

W. B. SAUNDERS & CO., Philadelphia and London, 1908.

Bier's Hyperemic Treatment, by Willy Meyer, M. D. and Prof. Dr. Victor Schneiden.

MISCELLANEOUS.

Medical Guide and Monograph Series. "Golden Rules of Dietetics," by A. L., Benedict, A. M., M. D. (C. V. Mosby Medical Book and Publishing Co., St. Louis, 1908.)

The True Way of Life, by Nanny Randolph Ball Baughman. (Published by the Author, Burlington, Iowa, 1907.)

The Rubber-Neck, by Clivette. (The Lacroix Sweet Co., New York.)

Biennial Report of the Board of Health of the City of New Orleans for 1906-1907.

The Sphere of the Trained Nurse, by W. A. Newman Dorland, A. M., M. D.

Treasurer's Department, P. H. & M. H. S. of the United States Hygienic Laboratory Bulletin No. 37, M. J. Rosenau, Director. *Index-Catalogue of Medical and Veterinary Zoology; Subjects: Trematoda and Trematode Diseases*, by Charles Wardell Stiles and Albert Hansell. (Government Printing Office, Washington, D. C., 1908.)

United States Department of Agriculture, Bureau of Plant Industry; Circular No. 6. B. T. Galloway, Chief of Bureau. *The Cultivation and Handling of Goldenseal*, by Alice Henkel and G. Fred Klugh.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR JUNE, 1908.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	4	5	9
Intermittent Fever (Malarial Cachexia)	1	1	2
Smallpox.....		1	1
Measles			
Scarlet Fever.....	4		4
Whooping Cough.....	6	1	7
Diphtheria and Croup.....	7	1	8
Influenza			
Cholera Nostras.....			
Pyemia and Septicemia	2		2
Tuberculosis.....	44	51	95
Cancer.....	16	7	23
Rheumatism and Gout			
Diabetes	1		1
Alcoholism	2	1	3
Encephalitis and Meningitis.....	6	1	7
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	13	8	21
Paralysis	4	1	5
Convulsions of Infants	3		3
Other Diseases of Infancy	13	5	18
Tetanus.....	2	1	3
Other Nervous Diseases		2	2
Heart Diseases.....	39	26	65
Bronchitis	4	2	6
Pneumonia and Broncho-Pneumonia.....	8	8	16
Other Respiratory Diseases.....	4	1	5
Ulcer of Stomach.....			
Other Diseases of the Stomach	3	3	6
Diarrhea, Dysentery and Enteritis.....	53	15	68
Hernia, Intestinal Obstruction.....	1		1
Cirrhosis of Liver.....	6	1	7
Other Diseases of the Liver	2	2	4
Simple Peritonitis		1	1
Appendicitis.....	3		3
Bright's Disease	20	24	44
Other Genito-Urinary Diseases.....	3	5	8
Puerperal Diseases	2	7	9
Senile Debility	9	5	14
Suicide	8	1	9
Injuries.....	24	21	45
All Other Causes.....	27	14	41
TOTAL.....	344	222	566

Still-born Children—White, 23; colored, 25; total, 48.

Population of City (estimated)—White, 258,000; colored, 93,000:
total, 351,000.

Death Rate per 1000 per annum for Month—White, 16.00; colored,
28.64; total, 19.35.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.00
Mean temperature 81.
Total precipitation 2.39 inches.
Prevailing direction of wind, southeast.

New Orleans Medical and Surgical Journal.

VOL. LXI.

SEPTEMBER, 1908.

No. 3

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Instructions Which Should Be Given a Tuberculous Patient Making a Change of Climate.

By ROBERT B. HOMAN, M. D., El Paso, Texas.

What instructions should be given a tuberculous patient to whom a change of climate has been recommended is a question which does not always receive the consideration that is due it. This is realized more forcibly, perhaps, by those of us who reside in a climate to which individuals come from nearly all quarters, some having had instructions to do one thing and others another, and most everyone instructed to do some things which would be best left undone.

In view of this fact I would point out some of the most popular errors, giving reasons for so branding them:

I. It is quite common for an individual to come West with the advice to go on a cattle ranch and "rough it." This is a grave error for many reasons, the most important of which is that on the average cattle ranch it is practically impossible to procure

the very articles of diet that have been found of greatest service in tuberculosis, viz: milk, eggs, and fresh meat. Of course to those not acquainted with the conditions this statement is contrary to what would be expected, but on most of the ranches there is not a woman, and where this is the case there are no milch cows or chickens, and the cooking is poorly done. The cowboys eat frijole beans, bacon, bread and canned goods. Their active life in the open air enables them to eat and digest these articles of diet and keep in good condition on them, whereas this is impossible with the average consumptive. In addition to this the term "rough it" implies an activity that is certainly not good for the tuberculous individual, and yet the average robust and healthy cowboy is so active himself that he insists on the consumptive exerting himself more than is good for him.

2. We meet many patients who have been instructed by physicians to "let doctors alone and take plenty of exercise in the open air." Now, such advice is doubtless meant for the good of the patient, but it most assuredly is not. Every tuberculous individual is a case unto himself, and what one patient can stand in the way of exercise, or what he demands in the way of rest would not be right for another, so that there are few conditions in which the advice and constant care of a good physician are more needed. In this high and dry country the air is invigorating, and upon coming into it one is apt to exercise too freely for his good, and eat too much for the good of his digestive apparatus, during the first week or two, only to meet with a breakdown or some other trouble later, from which he will at least be many months recovering.

3. Many patients are sent to this country practically without means, with the expectation of getting on a ranch or somewhere at a very nominal expense. There was never a greater mistake than this. Tuberculosis is a disease that must be combatted by building up the natural resistive forces of the individual, and to do this one must have the very best food, comfortable quarters, and plenty of time for rest as well as medical advice. These cost money anywhere, and the West is no exception. To obtain the best results one must be provided with sufficient means to get the things necessary for his welfare without having to worry about it.

Some are also told that they can come here and obtain light employment out of doors, and thus gain a livelihood and get the advantage of the climate at the same time. This is true in but a very limited number of cases, as there are many applicants for every position of that kind, and one should not be sent to this country with any such expectation unless arrangements for a position are perfected beforehand. None should accept even the lightest employment at least during the first few months of their stay here if they have the means to provide what they should have without it.

4. Every patient should be instructed as to the exact nature of his illness, and especially cautioned as to the danger of promiscuously expectorating, as well as the proper disposition of his sputum, before leaving home, as he may not seek the advice of a physician upon arriving at his destination and therefore he is to a certain extent a menace to those around him until he is properly informed along these lines.

The practice of telling people that they have only a bronchial affection, or that unless they make a change of climate they will have tuberculosis, when the physician knows the disease already exists, is criminal, because such expressions are inclined to lead the patient to consider his condition so lightly that he does not carry out the directions given him as conscientiously as he should.

5. The cure of tuberculosis under the most favorable conditions requires time. Reference to the report of the surgeon in charge of the United States Sanatorium for Tuberculous Soldiers, which is located at Fort Stanton, N. M., for the year 1907, reveals the fact that some of those who were discharged from that institution as cured during that year had been in the institution and under treatment over three years. If they had been discharged prior to that time they would not have gone out as cures, so every patient should be instructed that he must not expect to recover in a short time. The reparative and reconstructive processes in tuberculosis are very slow, the actual time depending upon the extent and age of the lesions.

One reason so many people suffer relapses when they return to their former homes is that they did not remain in this country sufficiently long. We frequently see people who improve almost from the day they come to this climate, and who in a few months

undoubtedly have their trouble arrested, but it is only arrested, and if they return to an unfavorable climate then, they are pretty certain to begin to grow worse, and upon returning to the climate where they were benefitted before they either fail to improve at all or the improvement is much less rapid than before. No consumptive should expect to get any permanent result from a stay of less than a year, and more often from two to five years is required. In some there is never a cure, but the disease is so arrested and the general condition of the patient so improved that he is a fairly active and useful citizen in the favorable climate. Such an one should never endeavor to make his home in the old climate again.

6. The practice of changing from one place to another in search of the Mecca for their ills should be discouraged. Every consumptive will meet with people who will tell him of the advantages of this place and that one, and if he follows all the golden fancies that are held out to him he will be constantly on the go, riding in poorly ventilated trains and having poor hotel accommodations. He should be instructed that no place to which he may go is absolutely perfect, but that he is being sent to the place that to you as a physician seems best for his condition, and urged not to make a change until advised to do so by some physician who has examined him and had him under observation long enough to know his exact condition and his special needs.

One Hundred Laparotomies without a Death in a Country Practice.*

By A. SCHWING KIBLINGER, M. D., and ELLIOTT KIBLINGER, M. D.

The above cases include operations of all kinds from a simple exploratory incision to the removal of large cystic tumors weighing over one hundred pounds.

All the operations were performed at patients' home, varying in distance from our office from one-half mile to twenty-five miles. Some operations were performed out on the gallery. The homes of the patients in the majority of instances were dirty cabins. The after treatment was carried out by old women who had no knowl-

*Read before the Avoyelles Parish Medical Society, and published by request of its members.

edge of such work, but, of course, one of us visited the patient once every twenty-four hours. In one case we were compelled to go a mile to find a pot in which to boil our instruments. In another we were compelled to make a table out of fence pews on which to operate.

I believe the success of our work under such unfavorable environments depends upon a thorough emptying of the gastro intestinal tract, as follows: For ten days before operation we give our patient aloes and salts, combined with alkalies, and give same in small doses often and with plenty of water, by that means we require the patient to take from 2 to 3 quarts of water daily. Next, we have our patient strip and lay on the previously scrubbed floor and have her neighbors lather her and scrub vigorously with a wash-rag and Bichloride soap. One such bath every day for a week.

On the day of operation we find our patient clean, inside and outside, and with the thorough preparation of the abdomen after she is put on the table we never have sepsis to develop during convalescence. In fact, in only one case a stitch abscess developed. We make this report for several reasons, chief among which is the absurdity of always sending such patients to the cities for relief, and taking out of the parish thousands of dollars, which we probably need more than the city brothers.

I admit that the after treatment, necessitating on an average ten visits, is wearing and irksome, but one cannot attain success in anything except by hard work.

We make it a rule to make the daily after visits, leaving home at 2 a. m., or 8 p. m., that is in the night so not to interfere with our daily medical cases. We also make it a rule not to have over two cases convalescent at a time, the majority of cases being operations of election.

How did the surgeons of the cities ever get to be so proficient and dexterous? Was it not by hard study, especially of anatomy and physiology and the technic of other gynecologists and by practice, first on animals, then a patient? But no one should attempt such work until he is thoroughly familiar with the structure involved and the function of that structure, and the steps of the operation should be automatic.

That every safeguard be observed to protect our patient from

any mishap, we make it a rule to always tie all large vessels twice, as we being so far away from our patient for hemorrhage to occur would mean a death. We apply the abdominal binder so securely that it is impossible for it to slip and expose the wound to the air, and hence become infected. In giving our instructions to the family before leaving, we always tell them if they do not follow implicitly, their patient will surely die, and by this means we frighten them into obeying.

Bright's Disease; Its Operative Treatment.*

By WALDEMAR T. RICHARDS, M. D., New Orleans.

Surgery is gradually and insidiously but, nevertheless, surely invading provinces that once belonged solely to medicine.

One of the most striking examples of this drift in the stream of surgical progress is the operative treatment of Bright's disease.

Since the classification of surgical diseases of the kidney by Simon, the advance in renal surgery has kept pace with the advance of surgery in other fields and today there is no organ of the body which is more interesting to the surgeon.

It is within comparatively recent years that surgery of the kidneys has embraced Bright's disease.

In reviewing the history of renal surgery I find that as far back as 1896 Harrison, Newman, Edebohls, Ferguson, Israel, Pousson, and others found that albuminuria coexisting with movable kidneys were cured by nephropexy and nephrotomy. The explanation given was the relief of tension by nephrotomy. None of these authors advised the practicability of applying nephrotomy to the cure of Bright's disease.

To Harrison is given the credit for the first attempt to relieve Bright's disease by incision through the capsule into the parenchyma. His object was the simple relief of tension, arguing that an injured kidney is markedly assisted by removing the presence of extravasated blood, either within or surrounding the organ.

Newman, of Glasgow, was the next to suggest nephrotomy as a means of influencing the arrest of Bright's disease. His results

*Read at meeting of Orleans Parish Medical Society, July 13, 1908.

showed a disappearance of albumin and the concurrent attacks of pain.

In 1899 Edebohls reported in the *Medical News* six cases of chronic nephritis affecting movable kidneys. Nephropexy and nephrotomy on these cases resulted in a cure of the nephritis.

For two years following this report Pousson, Weir, Mongour, and Israel directed their efforts to suspected surgical nephritides confining their operations to nephropexy and nephrotomy.

Israel, reading a paper before a Congress of Medicine and Surgery, held in Berlin 1899, resented the imputation that he advocated or even suggested a surgical treatment for Bright's disease. The trend of his paper was merely to show that by splitting the capsule the inflamed tissue may be made to retrograde toward the point of health.

Mongour and Pousson regarded nephrotomy as a last resort in desperate cases and to be performed only on that class of cases where uremia was present to such a degree that milk diet, diuretics or bleeding were of no avail.

To Edebohls, of New York, is due the full credit for having been the first to perform an operation on a case of chronic nephritis with the prime purpose of the curing the disease.

Renal decapsulectomy or decapsulation has survived the storm of seven years' criticism and today promises a boon to sufferers of Bright's disease.

What is chronic nephritis or Bright's disease? In a true nephritis we have an inflammation and degeneration of the interstitial tissue, glomeruli, epithelium lining the tubules of the kidney, and also a degeneration of the blood vessels. These changes as a rule occur in both kidneys, altho of different degree in different organs. Kummel, Strauss, and other pathologists have proved this difference in degree in different organs.

We know that there are cases of albuminuria and cylindruria that are not properly speaking true Bright's disease, but if left undisturbed, particularly the causes that produce the albuminuria and cylindruria, chronic nephritis will occur. This, for instance, is shown in that large class of cases of floating kidney, particularly in women where torsion of the blood vessels and ureter causes a passive congestion and backing up of urine with resulting al-

buminuria. These cases if anchored early enough the albuminuria will disappear. I have seen simple nephropexy cure albuminuria and cylindruria.

Classification: In referring to some authorities, one is bewildered by the numerous and complex classification of chronic nephritis.

The two pathological entities parenchymatous nephritis or inflammation of the secreting structure and glomeruli of the kidney and interstitial nephritis or the inflammation of the connective tissue are the basis upon which all pathologists agree.

Edebohls' division is the most practical. He designates interstitial nephritis as that class of cases in which the gross evidences of inflammation of the connective tissue of the kidney predominate;—parenchymatous nephritis as those in which the involvement of the secretory apparatus form the most salient feature, and diffuse nephritis that character of renal inflammation characterized by implication in a fairly equal degree, of both the parenchyma and connective tissue of the organ.

With this knowledge at hand our mind reverts to the query: How does this operation cure and what is there in the operation?

In answering this question I will have to first give you the results of Johnson's findings in dogs, decapsulated for artificially produced Bright's disease. He found that the renal capsule consists of two layers, the outer of which is the thicker. In decapsulation the outer layer alone comes off, leaving the inner layer lacerated and adherent. After decapsulation first a thin exudate appears on the surface of the organ which, with the remains of the inner layer of the old capsule, becomes a fibrous investment resembling macroscopically the normal capsule of the gland in that it strips readily and becomes more and more firm. In some cases this capsule is thicker, in others thinner than the original, generally thicker. There is always a considerable anastomosis between the renal and perirenal vessels—particularly after a period of three months.

How does it bring about a cure? This is answered by the experiments just cited and also by observations made by Edebohls on three cases that had been previously operated upon. These cases showed firm connective tissue adhesions attaching the kidney to its surroundings. In the adhesions there were large and

numerous blood vessels running between the kidney and adjacent tissues. The blood vessels were so large that they required ligation of artery after artery in the division of the adhesions.

A notable fact was the predominance of number and size of the newly-formed arteries over the veins and a very significant fact was the direction of the blood stream toward the kidney.

Therefore, arterial hyperemization with a new source of nutrition to the kidney seems to be the basis of cure or improvement. Another important factor is the relief of the blood tension, thereby relieving the heart strain. The relief of this strain is most satisfactory, for if allowed to remain would spread to the entire circulation, hypertrophy the heart and cause the various scleroses attendant upon Bright's disease.

By what symptoms should we determine the proper time for operation? Upon the clinician falls the work of deciding the proper time for renal decapsulation. It is to the clinician that the patient first comes and upon him falls the decision concerning the advisability of the operation. The method has gained sufficient favor to be always considered in any case of this disorder.

Time and experience have shown that there are many pathological conditions of the kidneys that are beyond the reach and control of medicine and which have passed into a hopeless state by the continued presence of mechanical agencies that might have been arrested by mechanical means. Some of the most disastrous conditions of advanced kidney disease and its complications are due to mechanical causes which hitherto have only been imperfectly recognized. We know that in scarlatinal nephritis the damage that is done to the renal tissue is due to the inflammation occurring within an unyielding capsule. It is by the continued contraction without and the congestion within that a cirrhotic kidney is formed and finally destroyed by a process of squeezing.

How often have we seen this picture? A patient with pains in the loins; indigestion, with a loss of appetite and nausea; cardiac palpitation and dyspnea; progressive weakness; cold sweats, pasty appearance, due to anemia; impairment of vision, as spots before the eyes a cloudiness with transient total blindness; frequent urination and at times suppression, partial or complete; headache,

dizziness, vertigo, insomnia resulting in nervousness, at times fainting spells; puffiness of eyelids, face, feet and finally ascites, hydrothorax and edema of the lungs.

Gentlemen, do not wait for this extreme, but at the first sign of deterioration as shown by the persistence or increase of albumin when it should disappear from the urine. When there is suppression of the urine or a tendency to that state. When the disturbance of the heart and circulatory system becomes evident, a disturbance that is evidenced only during the course of inflammatory renal disorders.

Gentlemen, it is at this stage of Bright's disease that the best results are secured by renal decapsulation.

The operation in itself is not a difficult one, requiring only a sure and quick operator. Spinal puncture has been used, but a general anesthetic is preferable.

With the patient laying face down place a sand bag or Edebohls rubber bag (inflated) across the region of the umbilicus, this renders both kidneys accessible to operation. The incision is carried from the twelfth rib to the crest of the ilium along the outer margin of the erector spinæ muscle, without opening its sheath. Fibres of the latissimus dorsi muscle are bluntly dissected and the ilio-hypogastric nerve drawn to one side.

Dividing the transversalis fascia the perirenal fat is exposed. Separate this fat by blunt dissection and expose the kidney. If possible deliver the kidney on the back and then divide the capsule proper over the convexity of the kidney around each pole until the pelvis is reached. Each half of the capsule stripped and deflected back to the pelvis, next cut the capsule close to its junction with the pelvis, drop the kidney back into its fatty bed and close wound. Drainage is sometimes necessary. Care must be taken in stripping capsule so as not to tear the renal tissue. Double decapsulation can be done at one sitting.

Edebohls observed in parenchymatous nephritis there is a compression of the kidney by the capsule and on incision there is a tendency to hernia of the parenchyma. In interstitial nephritis there is no such tendency.

What are the results of this operation?

Statistics show that chronic interstitial nephritis and movable

kidney are most benefitted. Those cases of movable kidney with albuminuria and cylindruria are nearly always cured.

Those cases with a bad heart and general anasarca a temporary improvement can at best be hoped for. In those cases where the interstitial nephritis has existed for a long time and the sclerosis has invaded the intertubular and interglomerular spaces and the important structures of the organ the improvement is but a temporary success for the patient generally succumbs when the new capsule begins to contract.

The operation invariably and at once increases the daily output of the kidney and allows that kidney to do the best work possible for that kidney to perform. This result helps us to achieve the aim of the operation namely the prevention of a renal death.

Statistics of 400 cases show that 40 per cent. were markedly improved; 16 per cent. absolutely cured, 11 per cent. improved, and 30 per cent. mortality.

In Chronic Parenchymatous Nephritis death rate 25 per cent.

In Chronic Interstitial Nephritis death rate 26 per cent.

In Chronic Diffuse Nephritis death rate 75 per cent.

With these statistics in mind I wish to report three cases:

Case 1. C. G. An Austrian by birth; 41 years of age. Family history: father died in Europe of Bright's disease five years ago; mother and two sisters living and apparently enjoying good health. Personal history: Married; has three children; has been a sailor all his life, and for the past seven years has been a fisherman, subjecting himself to dampness and exposure at all seasons of the year. Takes an occasional drink to keep from being chilled when in the water seining, but has never used alcohol to excess. Has always been very robust and strong. In March, 1906, he began to notice his diminished capacity for work and that he could not stand the cold weather as heretofore. Whenever he seined in cold weather he would tire very easily and get pains across the back in the region of the kidneys. He consulted a doctor in Biloxi, Miss., for the pains and was advised to take "Doan's Kidney Cure." He took nine bottles and became disgusted. At the end of April of the same year he noticed that his ankles would swell and that the lower eye-lids became puffy toward sundown. From this time on his history was one of typical parenchymatous nephritis. He drifted from one doctor to another

until September, when I saw him. The edema at this time extended to the knees; his face was almost chalky. There was no cardiac involvement and stomach and bowels were in good condition. Breath uriferous.

Examination of urine showed 11 per cent moist albumin, hyaline and granular casts. S.G. 1022, 1 per cent urea in 24 hour voiding. Passing an average of 23 ounces of urine in 24 hours.

On September 15th, under ether anesthesia, I decapsulated both kidneys in one hour and five minutes. Both kidneys were easily delivered through the wound. They had the typical appearance of chronic parenchymatous nephritis. They were, I should judge, about twice the normal size. Bled freely when the capsule was stripped. The surface showed blueish-looking spots which disappeared when I wrapped the kidney in a towel wet with hot normal salt solution.

Patient stood the operation very well, not even requiring any stimulation.

Subsequent History: The following morning his temperature was 102 and he complained of excruciating pains in the region of the kidneys. This pain subsided after the administration of twenty grains of sodium bromide. For the first twenty-four hours he voided 20 ounces; second twenty-four hours, 31 ounces; third twenty-four hours, thirty-six ounces; fourth twenty-four hours, forty-nine ounces, and from this time on he voided an average of fifty ounces. In eleven days he was up and walking around and went home on the fourteenth day. The edema had entirely disappeared. An examination of the urine showed nine per cent. albumin and fewer casts.

Seven weeks later I saw patient. He had gained nine pounds in flesh and to all appearances seemed very much improved. He went home the same day and therefore I did not get a specimen of urine. I saw him at intervals of two to three months and his condition continued to improve. He is at present engaged in boat building—doing hard work. An examination of the urine made by Dr. Wymer, fifteen months after operation, showed the following findings: Straw Color, S.G., 1018. Acid. No albumin or casts, large amount of phosphates and urates. Urea 2.25.

This is undoubtedly a cure. The patient received no medication with the exception of 15 drops of tr. chloride of iron three times

a day. His diet was restricted to milk and dairy products, with vegetables and cereals.

Case 2. Was that of a young woman suffering from a unilateral nephritis. This patient had been a constant sufferer for two years and as her occupation was one that required her to stand from 8 a. m. to 5 p. m., she became neurasthenic.

Examination of urine showed S.G. 1019. Albumin, trace.; Hyaline, casts; sugar, none. Total voiding in twenty-four hours, forty-seven ounces.

These urinary findings were not sufficient to warrant stripping the kidney, but since the patient was suffering from a floating kidney that could at times be felt under the umbilicus, I decided to anchor the kidney and if on examination of the kidney I found sufficient congestion to warrant me to decapsulate I would do it at the same time.

At operation, the kidney, owing to the long pedicle, was easily delivered on the back. The surface showed mottling of blue and black. The renal arteries and veins were very tortuous and much enlarged. On incision of the capsule the parenchyma of the lower pole of the kidney bulged through the incision. This bulging was hardly perceptible at the upper pole. The removal of the capsule was tedious owing to its thinness and being very friable. The kidney seemed to swell to twice its size after decapsulation. Kidney anchored to its bed with four kangaroo tendons and wound closed leaving a small cigarette drain. In three weeks the patient had resumed work and an examination of the urine showed an absence of albumin. Casts still present.

Examination fourteen months later showed urine to be perfectly normal. Patient has gained weight and the neurasthenia has entirely disappeared. Daily voidings average fifty-seven ounces.

Case 3. Spaniard, forty-six years old; had been afflicted with nephritis for five years, during which time he was under treatment. Had spent one year in Hot Springs, from which he received a material benefit.

He applied to me for relief of the persistent headaches and loss of appetite.

His previous history was negative. A cigar maker by trade necessitating his being seated at a bench for ten to twelve hours a day. Has all his life been a very heavy eater.

Examination of urin: S.G. 1026; very heavy and dark in color. Albumin, 11 per cent.; hyaline and granular casts, uric acid and urates in abundance. Average voidings, thirty-five ounces. At times it dropped as low as twenty ounces. He said that whenever his urine became scant and his feet swelled, he would drink Buchu tea for a few days and the swelling would disappear, urination become more frequent.

The chance of a cure by operation was submitted to him and he cheerfully agreed.

Under ether anesthesia and with the usual incision the right kidney was delivered on the back and stripped. It was utterly impossible to deliver the left kidney, owing to the short blood vessels, this necessitated stripping the kidney down in the wound which made the operation tedious and not near as satisfactory as when the kidney can be delivered on the back.

Time consumed was one hour and fifteen minutes. Patient reacted from operation and anesthesia. He complained very bitterly from pain in the back, requiring morphine, one-quarter grain by needle. I was forced to give him this because the usual bromides had no effect.

Voidings of the first 24 hours were 13 ounces; second 24 hours, 25 ounces; third 24 hours, 31 ounces; fourth 24 hours, 45 ounces. From this time on he averaged 52 1-2 ounces.

Examination of urine made seventeen months later: S.G. 1019. No Albumin. No granular casts, a few hyaline casts. General condition markedly improved. Eats and sleeps well, does not suffer from ocular symptoms and is at present foreman in a large cigar factory in Tampa.

In conclusion: I think it inadvisable to operate on Bright's disease until medical measures have been given a fair trial.

When symptoms of heart overtaxation begin to show themselves no time should be lost. Decapsulate at once.

Movable kidney with unilateral Bright's disease is the most favorable for operation. Diffuse nephritis is very unfavorable.

When the heart is bad and general anasarca is present, temporary benefit cannot but be hoped for.

Lastly: The value of complete decapsulation of the kidneys as a therapeutic measure in Bright's diseases is assured.

With the results of Edebohls, Ferguson and other surgeons at hand, we are warranted in offering this means of assisting a class of otherwise hopeless cases.

Report of Cases.*

By GORDON KING, M. D., New Orleans.

I.

A CASE OF FIBROMA OF THE NASO-PHARYNX REMOVED BY AVULSION.

In April, of this year, there came to the clinic of the Eye, Ear, Nose and Throat Hospital Robert P., a white boy, nine years of age, complaining of nasal obstruction, and bearing the objective symptoms so commonly observed in children affected with adenoid vegetations. The mother called our attention, however, to the fact that the child had been operated upon about two years previously for adenoids, and had suffered severe hemorrhage at the time. Anterior rhinoscopic examination revealing no cause of the stenosis which was practically complete, I made a careful investigation of the naso-pharynx with mirror and finger and discovered what I had already begun to suspect—a large sessile fibrous tumor firmly attached to the pharyngeal vault and the margin of the right choana. My past experience with this class of tumor led me at once to realize that we had here to deal with a growth the removal of which was fraught with grave danger from hemorrhage, difficulty of execution, and at the same time exacted radical extirpation to prevent recurrence. Gathering together, therefore, various instruments recommended in the operative treatment of fibromata of this region, I decided to make my selection of the method to be employed after the patient was under anesthesia and could be more thoroughly examined. Among other instruments, I had prepared a strong Bosworth snare generally considered useful in such cases, but the inefficiency of which I desired to demonstrate to the Polyclinic class present. Pure fibromata of this region are too tough in structure and too sessile

*Read at meeting of Orleans Parish Medical Society, June 13, 1908.

in attachment to permit of the use of such an instrument, and this case proved no exception.

Placing the patient in the Rose position and tying the palate forward with a rubber catheter passed through the nasal fossa, I could get a view of the lower portion of the growth. This part was then cut into with curved scissors and a firm hold on the body of the growth secured with the powerful Doyen forceps made for the purpose. The entire growth was then forcibly torn from its attachment and brought with it some of the ligamentous tissue from which it sprung. Gauze packs were quickly forced into the naso-pharynx to arrest the violent gush of blood, they being afterwards replaced by the regular post-nasal plugs with cords attached. The patient left the operating room in apparently good condition, but a half hour later developed symptoms of severe shock amounting to almost complete collapse from which he rallied only after vigorous stimulation and restorative measures. The subsequent recovery has been uninterrupted except for a few slight hemorrhages, and as yet no evidence of recurrence can be observed.

II.

SARCOMA OF THE MASTOID FOLLOWING OPERATION FOR MASTOIDITIS.

In the fall of 1905 I was consulted by an Italian woman, Mrs. V., 68 years of age, for relief from an acute mastoiditis on the right side, complicating a chronic middle-ear suppuration of many years' standing.

The radical operation was performed and an extensive purulent involvement of the process found to exist. Nothing unusual was observed in the character of the pathologic debris common to such cases, and in spite of the rather advanced age of the patient, a favorable result was confidently expected. The wound, however, failed to heal promptly and a few weeks later the patient began to complain of great pain in the region and a marked swelling appeared. Thinking that perhaps some carious bone had been left behind I proposed a secondary operation, and much to my surprise, upon reopening the wound found the entire mastoid region occupied by a friable mass of neoplastic tissue causing absorption of the contiguous bony parts, and already encroaching on the meninges.

Microscopical examination proved this to be a round celled sarcoma. Rapid recurrence took place and the tumor assumed large size before the death of the patient a few weeks later.

III.

PURULENT MENINGITIS OF OPTIC ORIGIN, ROUTE OF INFECTION THROUGH THE FALLOPIAN CANAL AND INTERNAL AUDITORY MEATUS.

Levi W., negro male, 23 years of age, a teamster, gave history of middle-ear suppuration one year ago, which had apparently subsided until one week before admission of patient to clinic. At that time examination revealed a purulent rhinitis, a polypus in right ear, and a purulent discharge from the left. No evidence at that time of intracranial complication. About a week later the polypus was removed with aural curette, the canal cleansed and packed with absorbent cotton. The following day this was removed and the ear irrigated. Four days later patient appeared at clinic in state of drowsiness and stupidity, and it was observed that a facial paralysis had appeared on right side. Temperature was 101, pulse 60, and respiration 30. Very little could be learned from him as to how he felt, owing to the mental hebetude. He was put to bed and a careful record kept of pulse, temperature, and respiration. Two days later an exploratory operation was performed. The mastoid was eburnated, but showed no involvement from the middle-ear suppuration.

The lateral sinus and dura when exposed appeared normal to the eye.

After leaving the operating room the patient had chill and went into a state of collapse, as indicated on chart. Active stimulation brought about reaction, but patient continued restless and suffered pain in head and back.

The next forty-eight hours the general condition improved except for the mental stupor and pain in head and back, and occasional spells of delirium and extreme restlessness which necessitated the use of morphine and bromide. The third day after operation the symptoms of a more generalized meningitis was pronounced, and dissolution came on the fourth day.

Autopsy findings were as follows: Absence of any caries of

temporal bone communicating with cerebral cavity. Adhesions of meninges about internal auditory meatus, which region showed purulent meningitis. Pus diffused over surface of cerebellum and medulla extending down into the spinal canal. Route of infection thus undoubtedly demonstrated to be through tract of the facial nerve.

IV.

A CASE OF COMPLETE APHASIA AND RIGHT HEMIPLEGIA, COMPLICATING ACUTE OTITIS MEDIA, RELIEVED BY CEREBRAL EXPLORATION.

Marie Antoinette G., a little Italian girl, two years and six months of age, came under my care in the spring of last year through the courtesy of Dr. Maxime Landry, the family physician. The child had just convalesced from an attack of measles which had caused a suppuration of both ears, and although there was copious discharge from both she cried continually with pain referred to the left side of the head. Although the tympanic membranes were already perforated I incised them freely to obtain thorough drainage and instituted the usual antiseptic treatment, with no effect, however, on the persistence of the pain. About a week later the child, who had been quite a busy little prattler, suddenly became aphasic and lost the use of the right arm and leg. Feeling sure that an abscess had developed in the region of the temporo-sphenoidal lobe, I consulted with Dr. Landry and we agreed that operation should be immediately performed. The mother, however, seriously objected, and not until another week had passed and the symptoms remaining unchanged, did we obtain a reluctant consent to interfere.

The usual mastoid incision was made and prolonged upwards and forwards to gain access to the temporo-sphenoidal lobe where we felt certain a brain abscess or an extra-dural pus collection would be found. After a complete evacuation of the mastoid cells, which proved to be only moderately involved, we resected a portion of the squamous plate. The dura at this point appeared normal, so we proceeded to dissect up a flap and expose the brain surface. This showed unusual congestion and cerebro-spinal fluid flowed freely when the pia was opened, though no trace of pus could be

seen. The temporo-sphenoidal lobe was then explored in every direction with a scalpel and narrow-bladed hemostatic forceps with negative result. Investigation of the tympanic roof was then made with no better result, so feeling that we had gone as far in our investigation as prudence permitted, we partially closed the incision with sutures and the remainder with iodoform pack.

The patient was taken from the operating room with good pulse and respiration and showed no subsequent bad effects from the operation. Within a few days, much to our gratification, speech and mobility of the affected limbs began slowly to return, and complete restoration took place within six weeks' time. The little girl is at present enjoying good health and pursuing a normal course of mental and physical development.

Louisiana State Medical Society Proceedings.

EDITED BY PUBLICATION COMMITTEE.

DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DR. S. C. BARROW, read a paper on

Some Therapeutic Uses of the X-Ray.

Since December 4, 1895, when William Conrad Roentgen announced to the world the existence of that peculiar and wonderful form of energy called by him the X-ray, science has been so enrapt with its power and uses as a diagnostic agent, that little attention has been paid until the last few years to its possibilities in the treatment of disease.

Through accidents, such as a dermatitis, relief from pain in swollen joints, improvement in chronic skin affections, etc., gotten from prolonged exposures in the early days of roentgenography, the minds of close observers were directed to the X-ray as a probable therapeutic agent.

During the last few years clinical experience and laboratory experiments have cleared many points of uncertainty of action of

the roentgen ray, so that we find at present the X-ray therapy of many conditions clearly indicated in the light of scientific knowledge, with many others justified on clinical experience.

In making use of the X-ray in therapeutics it becomes the physician, as with other agents, to hold clearly in mind its physiological action and the pathology of the tissue to be rayed, for without a proper conception of each, our work is empiric and results are gotten by chance. With the ray, as in other departments of therapeutics, this is not altogether possible in the light of our present knowledge, but by accepting proven facts, and following in line with the successful clinician, we can better exert our energies for the relief of our patients and the advancement of X-ray therapy.

In attempting to explain the results gotten through X-ray exposures in the various conditions, in which it has proven beneficial, different observers have adopted and acted upon different hypotheses, each of which may be amplified by clinical and laboratory experience.

It is a fact, not denied by any who have had sufficient experience, that the X-ray applied to parasitic skin lesions produces results far more satisfactory than the usual medical lines of treatment, yet the results obtained by laboratory investigations on the question of the bactericidal properties of the ray are confusing and contradictory. Keen, Davis, Gocht, and others claim that the X-ray, *per se*, has no regular bactericidal properties, while Reider, Holzknecht, and others of equal prominence claim the bactericidal action is constant. All observers, however, agree that when embedded in living tissue microorganisms are killed or their growth retarded by X-ray exposures. This would seem to indicate that the X-ray brings about the formation of some substance or condition in the body fluids which strengthens the defensive forces, or renders those of attack weaker. This theory is held by Gibson and McCulloh, who demonstrated the induction of auto-vaccination in tuberculosis by X-rays in which the opsonic power was carefully watched.

Schwartz has shown that after X-ray exposures the terminal nerve filaments are primarily affected, causing a paresis of the capillaries, followed by passive hyperemia, analgesia and finally necrosis.

Writing on the subject of tissue change, Dr. Snow, in an editorial in the *Journal of Advanced Therapeutics*, May, 1907, stated that the X-ray effects on living tissues are mainly due to inhibition, and that there is a retrograde metamorphosis which naturally affects cells of low vitality first, and the destruction to germ life is due to this change of environment as well as inhibition exerted upon the germ itself. He discourages the idea that there is any benefit from the local hyperemia, as this condition comes on later, and in many instances, the local lesions have disappeared, before the hypermic stage is developed. Through its inhibitory power there is induced in the irradiated cells varying degrees of inertia depending upon the vitality of the individual cells, the quality of the ray and method of application. Upon this hypothesis alone, we have a clear explanation of the beneficial results gotten in many conditions from X-ray exposures.

By the resolvent action which the ray produces in all neoplastic tissues true vaccines may be liberated and auto-vaccination induced, resulting in constitutional improvement as seen in tubercular and other infections, when the enlarged glands are rayed.

When local lesions of a general infection are eradicated systemic improvement usually follows and in direct proportion to that of the local condition. Dr. Wilkinson, of Manila, reports a case of leprosy, cured by X-ray exposures, and assumed that in raying local areas the organisms are killed, their bodies absorbed and act as toxins to those living in distant parts of the body.

Dr. Brigham, of Boston, has shown that the ray will cause a decomposition of NaCl in the tissues, and gives three reasons why we get irritation after prolonged X-ray exposures: viz, first, because of the free chlorin gas; second, a thermal burn as the Na unites with H₂O of the tissues, and, third, a chemical burn because of the NaOH distributed over and through the rayed area.

Thus to summarize, we find the ray has:

First, a destructive or sterilizing effect upon most forms of microörganic life, which is produced either directly or indirectly by preparing the tissues to more easily overcome the invading germs.

Second, through its resolvent action on glandular tissue, vaccins, or antitoxins, may be liberated in the general circulation.

Third, by raying local areas the bodies of dead bacteria produce auto-antitoxins, resulting in improvement in parts not rayed.

Fourth, by inhibition, the ray checks the growth of pathological cells without necessarily damaging the neighboring normal cell.

Fifth, in glandular hyperactivity the ray is beneficial through its inhibition on the individual cell.

Sixth, by its paralysing effect on the terminal nerve filaments and capillary vessels, the ray is anodyne and antipruritic, also the skin appendages are inhibited in growth or completely destroyed.

Seventh, by the liberation of nascent Na and Cl in the tissues, the ray can be made to produce thermal, chemical or caustic effects.

With a knowledge of these facts X-ray therapy is rational, at least, in many conditions, and certainly far more so than the usual indiscriminate use of drugs, proprietary mixtures and patent frauds, practiced by some of our confreres while denouncing the ray as dangerous and worthless.

In treating diseased conditions by means of the X-ray you should have and follow a definite technic, which should vary only as experience and conditions indicate. Personally, I prefer, and always use when possible, the static current to excite the tube and invariably select a tube of low vacuum, unless I am dealing with a deep-seated condition, in which case a medium or high vacuum is preferred. Never make use of shields which are applied to the tube, but employ lead foil or similar material which can be made to fit snugly to the skin surface. As a rule, place the tube about eight to twelve inches from the surface and ray for ten minutes, every third day until the first signs of dermatitis, or until marked subsidence of the diseased condition takes place. By following this plan, I believe burns will be as rare as with those who make use of the various imperfect instruments for X-ray measurement.

I have selected the following cases from among many, as representative of the four conditions in which the proper use of the X-ray has proven, in my hand, most satisfactory:

Case 1. Miss D—, milliner, age 41, referred by Dr. O'Leary, July, 1906. Family and personal history negative. About four years ago a small irritable ulcer appeared on left side of neck, slightly above angle of the jaw, and immediately below the ear. In spite of local treatment the ulcer remained and gradually increased in circumference and slightly in depth. There was no

pain, no glandular enlargement, slight redness and granulation in edges of ulcer. Diagnosis epithelioma. This case was rayed about every third day for three weeks, when a slight dermatitis appeared. When this subsided the ulcer had healed, and the area remains smooth and healthy to-day.

Case 2. Mr. J—, plumber, age 40, referred by Dr. R. H. Gray, March, 1906. This patient showed a dozen or more large, heavy, tubercular nodules and ulcers over thumb, dorsum and palm of right hand, of about ten years standing. He had been given every line of treatment, various diagnoses made, sent to Hot Springs, etc. The healthy parts of the hand were carefully shielded. Each ulcer and nodule heavily rayed. After first raying no new ulcers or nodules developed. Owing to natural rebelliousness of the disease, and irregularity of patient in coming for treatment, eighteen months were consumed before a perfect result was obtained.

Case 3. Mrs. C—, age 24, eczema of inflammatory type of both hands, arms and neck. The hands and fingers were swollen to twice their normal size, the skin broken and bleeding, and an intolerable itching and burning was so constant that she claimed not to have slept for an hour at a time for three months. The usual line of treatment had been faithfully followed, with no relief. She was rayed about eight times, the entire parts being treated at each sitting, as indicated, every third day. A few hours after first raying the pain was greatly relieved, and after third treatment no further inconvenience was felt, aside from the cracks in the skin folds, which rapidly heals.

Case 4. Mr. W—, carpenter, age 32, acne sycosis of both legs, from knees to ankles, for three years standing. As usual, had tried numberless doctors and remedies. He was rayed every third day for six times; results perfect.

The results gotten in these cases are in line with work being done by numberless operators throughout the world, and I believe the ray a superior remedy, under all circumstances, in these conditions.

Nearly all dermatologists agree that the X-ray should be used in "obstinate and rebellious cases," but if it is good in the obstinate and rebellious, how much better and quicker must it be in the mild and gentle types. Because quinin is curative in the pernicious

forms of malaria, is that any reason for withholding it in milder malarial infections? And so with diphtheria antitoxin; it has been proven effective in the obstinate and rebellious cases of diphtheria, yet there is hardly one among us who would not urge its use, even in the mildest type of the disease.

In conclusion, I would advise the use of the ray in the superficial forms of epithelioma, and in all type and forms of eczema, lupus, sycosis and acne.

DISCUSSION.

DR. GRANER: While this is under discussion I would like to ask these gentlemen what their experience has been with uterine cancers treated with the X-ray as regards beneficial results?

DR. BOOTH: Sometime ago my attention was called to the matter of the treatment of epithelioma and other growths. I would like to cite two or three cases. One case was an epithelioma of the breast, was not very deep, but showed a very irregular surface. I thought perhaps it was getting worse, but after persistent treatment it healed. Another case was that of an old woman who came to my office bleeding very profusely. I found the cervix almost gone. She had been undergoing treatment by a physician who gave some kind of remedy to relieve the pain, probably morphin. I told her I would give her this treatment and she consented. After thirty days she was relieved and seems to be getting along nicely. The third case was not very successful.

DR. BARROW (closing): Relative to Dr. Granger's remarks regarding the coil and the static machine, I would state that I said I preferred the static machine where you were going to do therapeutic work. The static machine will always work, and will never break down without giving you a little warning, as the coil sometimes does. It has very little damaging effect on the tubes and is, therefore, more economical. Besides that you can use it in places where the coil cannot be used. Regarding the instruments for measuring the intensity of the ray, they have been found serviceable, but I do not believe they are as accurate as a good eye or a good fluoroscope. With a little care and a little experience in watching the ray, you can form a very accurate idea of the intensity of the ray if you are using it in small doses. In this country

we usually use lighter doses than they do in the old country. With reference to the use of the ray in skin infections, the doctor makes the statement that he always uses it in chronic skin eruptions, leaving the impression that he does not use it in the acute. I have found it more serviceable in the acute types of eczema than in any other types. It relieves the pain, burnings, etc., very rapidly. Answering Dr. Granger's question as to the use of the X-ray in uterine cancer, I have had no experience in that line myself. I have seen it used, but there are other methods more applicable, except where you use it only as a palliative. As I tried to leave the impression, it is not indicated in malignant growth. Other methods give better results in the malignant cases. As to the tripsin and antopolin treatment, I have used it, but without results. The doctor is to be congratulated on the results he reports.

DR. GRANGER: I did not say that I limited the ray to chronic skin diseases, but to skin cancers.

DR. JOHN J. ARCHINARD read a paper on

The Bacteriological Diagnosis of Diphtheria.

I was under the impression that the Chairman of the Section on Bacteriology had requested me to open the discussion on "The Bacteriological Diagnosis of Diphtheria"; but a few days ago I received a copy of the program and to my astonishment I was slated to read a paper on this important subject.

Clinically, it is not always easy to differentiate diphtheria in its early stages from other affections of the throat and nose which are characterized by the presence of exudates. In view of the recent therapeutical advances in diphtheria, it is important that a very early diagnosis be made. For this purpose, accepting the almost unanimous opinion of experts, that diphtheria is due to the presence of diphtheria bacilli in the membranous exudate, boards of health, cities and hospitals have established a diphtheria service for the purpose of facilitating the early recognition of the disease. In order to carry out this method, a central laboratory with all facilities is established, and in cities a number of supply depots are located within reach of the practicing physician, where the material, in complete outfits necessary to make cultures from the throats of suspected cases of diphtheria, may be procured. These

outfits consist of a blood serum culture media tube, made after the formula of Loeffler and a swab or applicator kept in a well-sterilized test tube. This swab is a small iron rod, roughened on one end, and on which a little absorbent cotton is twisted. The test tube containing the swab is plugged with absorbent cotton and then thoroughly sterilized by dry heat for one hour at 150 C. The blood serum and swab are neatly packed together in a small paste-board box, together with a blank form giving instructions as to how the cultures are made.

The cultures from the throat are made as follows:

The patient is put in the best possible light and, if a child, properly held by an assistant, the mouth is opened, the tongue depressed by means of a spoon or other instrument, the swab taken out of its containing tube and gently rubbed over the false membrane or exudate in the throat, if any, or if no membrane be present, over the surface of the pillar of the fauces, after which, without laying down the swab, the serum tube is taken, the plug of cotton is removed, and the surface of the swab which has been in contact with the throat of the patient is gently and freely rubbed over the surface of the blood serum, being careful not to break into it, and certain to rub all sides of the swab upon the serum. After which the swab is returned to its tube, both tubes plugged, and the whole outfit with the blank form filled in is returned to the laboratory. On receiving the tube at the laboratory it is incubated at a temperature of 37 C. for twelve hours, at the end of which time it is ready for examination. If the case is one of diphtheria, the typical diphtheria growth is found on the surface of the culture. This consists of grayish or yellowish-white glistening spots, and a cover glass preparation of these shows in typical cases the Klebs Loeffler bacilli as short, thick rods, with rounded edges, irregular in shape, having a decided staining in some parts of their body, deficient in color in other parts, and characterized chiefly by the variety of form of the different bacteria forming the culture.

In exceptional cases it is possible to find colonies as early as five to six hours after incubation.

Indeed, for cases outside the city limits, in the municipal laboratory in New Orleans, it has been possible to make examinations of the swabs themselves by making cover-glass preparations from

the same even two or three days after they were prepared, and in a great majority of the cases come to a positive or negative conclusion, verified later clinically and also bacteriologically, by cultures made from these same swabs.

It is essential for these examinations that the culture from the throats of suspected cases be made before antiseptics have been applied to the throats, or, if that is not possible, the cultures should be made at an interval of at least two or three hours after such applications, as otherwise the antiseptics may have acted on the bacilli on the surface of the membrane and destroyed them or greatly inhibited their growth.

Pseudodiphtheria.—*Bacillus Pseudodiphtheriæ*: Another source of error in the application of this method comes from the pseudodiphtheria bacilli which are found in cultures and which greatly resemble the virulent bacillus diphtheriæ, but have no pathogenic power.

These pseudo-bacilli are of two kinds:

I. It is not possible to separate the first kind from the true diphtheria bacilli either by morphology or cultural properties. When injected into lower animals they are non-virulent, because they secrete no toxin.

II. The second kind, in my opinion, are very improperly so called, for they are not diphtheria bacilli, and can with little difficulty be differentiated from true diphtheria bacilli by their appearance, mode of staining, and their cultural properties.

Differential Diagnosis.—The method of staining suggested by Neisser is applicable especially to the recognition of the second form of pseudo-bacilli. For recognition of the non-toxin-producing form, experiments on animals is the only means of differentiating. What appear to be true diphtheria bacilli have been found in the throat and mouth in about 1 per cent. of a number of healthy persons examined, but generally in individuals who come in contact with diphtheria patients, or when diphtheria was prevalent in the community at the time of the examination. Those persons are always a source of danger to others, and they no doubt are in great measure responsible for the spread of the disease.

The experiments of Roux and Yersin have shown that the various cultures of diphtheria bacilli have different potency in the production of toxins, and that occasionally bacilli grown under

conditions, the same as much as possible, may at different times produce more or less toxins, and of a greater or lesser virulence. These facts bacteriologists are in no position to explain, and the toxicity of a diphtheria culture may only be determined by experimentation on animals.

DISCUSSION.

DR. DUPUY: Dr. Archinard laid great stress on the technical features of the question. I am certain we are all interested in the practical side, namely, the diagnosis of diphtheria. Some years' work has convinced me that we have two clinical forms of diphtheria. We have the typical and the atypical. The typical is so plain and well defined that he who runs may read. The atypical is so subtle in its onset and shows such slight local reaction that frequently it is not recognized as diphtheritic. It is difficult in the latter variety to make a naked eye diagnosis. I have seen many cases which the naked eye would declare to be a simple tonsilitis; the microscope, however, giving positive evidence of diphtheria. Again, we have many cases seemingly diphtheritic in which the microscopic examination gives a negative report, the clinical behavior of the case supporting the microscopical evidence. Not infrequently a post-diphtheritic paralysis during convalescence from what was thought to be a benign sore throat is the only fact which clinches the diagnosis of diphtheria. Primary nasal diphtheria and a non-diphtheritic membranous rhinitis present the same clinical features and are only to be differentiated by the only crucial test after all—the microscope.

DR. HUME: I would like to say a few words about Vincent's angina, about which so little is known, that it is sometimes very difficult to diagnose. I was ignorant of its existence up to about a year ago. It is an infection occurring usually on one tonsil only. I would like to ask Dr. Archinard and Dr. Dupuy if they have encountered this condition, which was first described in 1898.

DR. MCSHANE: In the treatment of diphtheria I make it a rule never to take any chances. I have in mind a case which was very obscure, but I did not delay or take chances. The disease developed, but he came out all right. I sprayed his throat with peroxid. Some years ago I had a case of tonsilitis. The swelling

was very great, and the inflammation passed from one side to the other. Peroxid did not seem to do any good in that case. I have not seen a case of angina as described by Dr. Hume.

DR. BASS: One might get an erroneous impression from Dr. Archinard's paper. That is that in order to make a bacteriological examination for diphtheria, it is necessary to have at the bedside a culture-tube and swab. Dr. Archinard will agree with me that it will be as successful if a simple swab made of cotton on a stick is used and is put into a bottle and sent a thousand miles if necessary to the bacteriologist. This will do just as well as if you stopped to send and get a culture tube. The bacteriologist can make culture from this. It is not necessary either that it be taken under aseptic precautions. I would like to know Dr. Archinard's experience in the differentiation of diphtheria bacilli and pseudo-diphtheria bacilli. It is claimed that it is possible to distinguish them by means of Neisser's stain. It is claimed that the staining reaction does not occur with pseudo-diphtheria bacilli or with other bacilli than true diphtheria bacilli. I have tried several stains of the pseudo-diphtheria bacillus and none of them stain with the characteristics of the genuine. If my experience is borne out by the experience of others it is of great value.

DR. ARCHINARD (in closing): The value of the practice of keeping the patient under observation is borne out by our experience in the last cases in New Orleans. We do not accept there a discharge of the case by the physician as clinically well until we have pronounced it bacteriologically well. We have had many cases of children clinically well, and three weeks afterwards have gotten results to show that they can infect a whole school. I have seen laryngeal diphtheria where you have little to guide you, but have been able to make the diagnosis as indicated. The country doctor does not need a test tube or any elaborate apparatus. All that is necessary is a piece of cotton which you can put into a bottle or tube, and we can find the bacilli two or three days afterward, when it reaches us. In the diagnosis you cannot go by the temperature. I have seen them die of diphtheria without any temperature.

DR. C. C. BASS read a paper on

A Simple Typhoid Agglutination Test.

The value to the public or to the profession of a diagnostic procedure depends largely on whether it can be accomplished by only a few, especially equipped for and trained in its performance, or whether it can be performed by the general practitioner. The value of the typhoid agglutination test has been held down heretofore by the very fact that it could only be made by one especially trained and having access to a fair laboratory equipment. In large cities, it is true, there are available laboratories where one can have the test made either for a fee or free, but these are not very available for the country practitioner. Even those who do take advantage of them, do so infrequently, for various reasons. Early and repeated tests are not made.

It was with the hope of removing the obstacles preventing the general practitioner from making his own typhoid tests that I have done considerable experimental work in the past few months, and as a result of these investigations I am proud to be able to call attention in this paper to a simple technic for making the test which is certainly as simple as examining the urine for albumen or taking the temperature. The technic is as easy to learn as either of these, and with it every physician has at his disposal as frequent typhoid tests as he may desire and absolutely as reliable as any laboratory can make for him and at a cost of only a few cents for a single reagent.

It is not intended in this paper to discuss the diagnostic value of the agglutination test in typhoid fever or the relative accuracy of the microscopic and macroscopic tests. These have all been well gone over in the past few years. Suffice it to say that the consensus of opinion as shown by the literature on the subject is, that a positive reaction will occur at some period of the attack in over 95 per cent. of all cases; that it will occur before the tenth day in over 75 per cent. of all cases; that it generally lasts well into and past convalescence; and that it does not occur in patients who have not now or who have never had typhoid fever. Also, the majority who have published on the subject agree that the macroscopic is certainly as reliable as the microscopic test.

The agglutination reaction depends on the presence in the serum of the patient of a substance, agglutinin, which has the property of causing typhoid bacilli to agglutinate or stick together and to cease their motility. Widal first applied the test in the diagnosis of typhoid fever and the reaction is, therefore, frequently called "Widal's reaction." He added the patient's serum, properly diluted, to twenty-four-hour-old cultures of typhoid bacilli. Normal serum frequently agglutinates typhoid bacilli if undiluted, so he first advised to dilute it ten times. Later a one to forty dilution became pretty generally adopted and a time limit of thirty minutes. There is now a tendency to adopt still higher dilutions, one to fifty to one to one hundred. After twenty or thirty minutes this is examined under the microscope and if positive the bacilli will be found to have clumped together and to have ceased their previously active motion. This constitutes the microscopic agglutination test as ordinarily made today and as you see, requires a bacteriological laboratory to supply the necessary twenty-four-hour-old culture, the equipment and working knowledge of a microscopical outfit, and the performance of considerable delicate technic.

The macroscopic test was brought out several years ago and was first made by adding serum in proper proportion to living broth cultures of typhoid bacilli. Agglutination of the bacilli occurs in a few hours and slowly forms a flocculent precipitate. This required the same bacteriological laboratory to furnish the required cultures. Later it was found that dead typhoid bacilli reacted in the same manner and there was put on the market, outfits for making the test—Fikkers diagnosticum, Typhoid Agglutometer, etc. Unfortunately the technic for making the test as directed by those exploiting the outfits is still pretty delicate and has prevented its more general use. One must collect blood, obtain serum from this (not itself easy for one not accustomed to such work), and make several delicate measurements and dilutions.

By using a suspension of bacilli in a fluid which will take red cells, I find that one may use in the macroscopic test whole blood instead of free serum. This is quite an advantage for he can now drop the blood directly from the finger into the test fluid and thus eliminate the collecting of blood and separation of serum from it before making the test.

In order to use the most convenient measurements for the general practitioner I propose that the strength or number of bacilli in the test fluid should be such as would make one drop of blood in one dram of the fluid correspond to a dilution of one to fifty in a twenty-four-hour-old broth culture. Making use of the well-known technic for standardizing bacterial vaccines I have determined the numerical strength of forty different twenty-four-hour-old broth cultures, such as are ordinarily used for the microscopic agglutination test, using seven different strains of typhoid bacilli. I found that they varied, frequently without sufficient apparent cause, from one hundred and eighty millions per *c. c.* to eighteen hundred millions per *c. c.* The average was eight hundred and forty-three millions per *c. c.* A drop of blood let fall from the finger or ear lobe is one-eightieth to one-ninetieth of one drachm. Therefore it would require about five hundred millions per *c. c.* for one drop to one drachm to correspond to a dilution of one to fifty.

Inasmuch as this is surely the most accurate method ever yet used for standardizing the test fluid, and as this seems approximately the proper strength, I now propose that it be adopted henceforth as the standard unless future investigation should show it to be grossly incorrect and inappropriate.

Suspensions of dead typhoid bacilli preserved with proper amounts of many of the different antiseptics keep indefinitely and the bacilli seem to retain their agglutinability perfectly. I have such a preparation preserved with formalin, over three years old, which seems to have lost none of its reactive powers. By numerous experiments I have determined that one part of formalin to five hundred is the strength that can be depended on to kill typhoid bacilli and prevent spoiling of the fluid by the growth of other bacteria. This strength formalin is selected for the preservative.

Directions for Preparing the Emulsion:— Several large plain agar-slants, one to one and one-half per cent. acidity are inoculated with at least five different strains of typhoid bacilli which must have been grown in laboratory for at least six months. Incubate at 37 1-2 degrees C. for twenty-four hours. Wash off with one to five hundred formalin solution. This is now put in a large bottle and thoroughly shaken. Allow it to stand and settle for at least two days and then draw off the supernatant fluid. The number

of bacilli in this per *c. c.* is determined by the well-known technique for standardizing bacterial vaccines. It is then appropriately diluted with the formalin solution so that one *c. c.* contains five hundred millions. The emulsion is now ready for use.

It is a well-known fact that certain strains of typhoid bacilli may agglutinate better in a given case than in others and the opposite may be true with other strains. Therefore stock test fluids should contain a mixture of several different strains and therein the macroscopic would possess advantage over the microscopic test. Another decided advantage is the use of a test fluid of constant strength in the macroscopic test I am now proposing, whereas in the microscopic method as I have shown cultures may on one day be ten times as strong as on another day.

The test is made as follows: Put one drachm of the emulsion into a test tube. Stick the finger or ear and allow one drop of blood to fall into tube. Shake and set aside for four to twelve hours. This corresponds to a dilution of one to fifty. Two drops of blood would make a dilution of one to twenty-five. One drop in two drachms would equal one to one hundred. If the reaction is positive there will be seen in one to four hours a flocculent precipitate settling in the tube. This will in four to twelve hours settle to the bottom. No such precipitate occurs if reaction is negative. The reaction is perfectly easy to determine by a simple observation. It is convenient to carry a small test tube containing proper amount of the emulsion and stoppered, when visiting suspected typhoid cases. One takes specimen, leaves it and reads the reaction the next visit, or he may carry it to his office and read after proper time has elapsed. Dried blood retains its agglutinin for many days, and if one has not the emulsion with him he can take a drop of blood on a piece of glass or crockery, allow it to dry and make the test at any convenient time afterward by dissolving the blood and proceeding as before described.

In conclusion, I wish to say that though the test as proposed seems as simple as it can possibly ever be made and it places a typhoid blood test within the reach of every practitioner, it is all the application of either the direct or indirect ideas of others too numerous to appropriately mention, and would not have been accomplished by me without these ideas. Drs. Parham and Martin

have contributed to this work by having placed at my disposal necessary laboratory facilities.

DISCUSSION.

DR. JOHN J. ARCHINARD: I want to ask Dr. Bass if he has made that test with all possible diseases of the liver and stomach? I would say in connection with what he says about the Widal test that there are some people who always give the agglutination. There are always a certain number who show this natural agglutination, and I would like to know if he has made comparative tests of people suffering with jaundice, diseases of the liver, stomach, etc.?

DR. WEIS: It seems to me that, until we are quite sure about this macroscopic test it is perhaps better to hold to the microscopic one.

Up to now I do not feel in a position to say that I can recommend the macroscopic "Widal" as as accurate or as as reliable as the microscopic. Therefore, until *proof* by longer experience and greater amount furnished I shall hold to the microscopic test as the most satisfactory one.

DR. E. DENEGRÉ MARTIN: I want to say this much in favor of the work done by Dr. Bass. In many cases he has been able to give us the diagnosis before the clinical tests were confirmed. Later his diagnosis would be confirmed by the clinical tests. I am not a bacteriologist, but I have seen some of his results. I trust that he has found something that is going to be of benefit to the profession.

DR. BASS: At the beginning of my paper I disclaimed any intention of discussing the relative value of the macroscopic and microscopic agglutination tests, stating that the literature is plain on that score. As to the comparative work done by those using the test, I may say that I have gone over the literature on the subject pretty thoroughly as to the relative value of the macroscopic and the microscopic tests. There are those who have not found as reliable the macroscopic as the microscopic tests. There are others, and equally good workers, who claim that they get more reliable results from the macroscopic tests. From the literature on the subject, I would believe it is fully as reliable as the microscopic test.

I did not attempt to go into the value of the agglutination test in differentiation of typhoid from diseases of the liver and others.

DR. ARCHINARD: Dr. Bass does not answer me directly. I asked if he had made tests with other diseases. I would like to know if he made tests with diseases of the liver, jaundice and various other diseases.

DR. BASS (in closing): I have tried the test in a large number of cases; possibly fifty or a hundred. In normal blood, I have made tests in at least two hundred cases.

DR. J. D. WEIS read a paper on

A Rapid Method of Demonstration of the *Spirochaeta Pallidum* for Diagnosis.

Before giving the method for diagnosis, it may be of practical advantage to superficially review the whole subject of the *Spirochaeta*, or *Treponema*, *pallidum*.

The now famous publication of Schaudinn and Hoffmann, on the occurrence of a spiral-shaped organism in syphilitic lesions, was published in 1895. Since when, many hundred observations, by men in all countries, seem to justify the statement of Manahan, that the *Spirochaete pallida* may now be considered as the true cause of syphilis. It is true that all the necessary rules for the identity of an etiologic organism have not been fulfilled, as for example the pure culture, still the finding of the *Spirochaete pallida* in acquired and experimental syphilis, in primary, secondary and lately in tertiary lesions, in all syphilitic efflorescences and in the blood seems enough to satisfy most authorities who now look upon this organism as the cause of syphilis.

To strengthen this statement, it has been found that the *Spirochaete pallida* occur alone without other organisms of any sort in a large majority of deep lesions of syphilis, *i. e.* in lesions which have no connection with the exterior of the body. It is also found alone in experimental lesions.

The supposition that this organism has nothing to do with syphilis, that it is an artefact, a nerve fibrilla or tissue fibre, as put forth by Thesing, Schultze, Friedenthal, and Saling, has been entirely disproved by the work of Levaditi, Hoffmann, Muhlens, Giemsa and others, *i. e.* by special stains. The original

observation of Schaudinn and Hoffmann was confirmed by Metschnikoff one month after its appearance. Metschnikoff and Flexner have since found the *Spirochaete pallida* in monkeys, which have been successfully inoculated with syphilis.

The *Spirochaeta pallidum* has an extremely delicate contour, it is about 4-14 μ long and .25 μ thick. The spirals are regular, usually 6-10, but 24 turns have been observed. Many involutions have been described. The Y-shaped ending of the spiral is a frequent finding. I have observed this constantly. Schaudinn observed flagella-like prolongations at the end of the *Spirochaete* which he claims stain by flagella staining methods and so makes the statement that the *Spirochaete pallida* have flagella. Kryszalowicz and Siedlecki claim these to be prolongations of the organism itself, pure and simple.

Until we can have observed the life cycle of the *Spirochaeta pallidum*, according to Neumann, it will be impossible to classify it, as to whether it belongs to the Protozoa or the Bacteria. Many morphologic and biologic facts speak for the bacterial relationship, Koch, Laveran, Thesing and others, hold this view, but Schaudinn himself, Herxheimer, Keysselitz and others claim the protozoa nature. No culture of the *Spirochaete* has ever been made.

The organism is found in the primary and secondary stages, in both open and closed papules, efflorescences and exanthems, in mucous plaques, in lip and eye affections, in glands and in the spleen and blood. In the tertiary stage, fewer observations have been recorded. Doutrelepont and Grouven report positive findings as does Tomaszewski. In hereditary syphilis, many cases have been reported in which the *Spirochaeta* has been found in the liver, spleen, kidneys, lungs, suprarenals, blood, cerebro spinal fluid, inguinal glands, pemphigus blisters, urine and bile.

The number of organisms present in a given case vary, often they may be very numerous and then again, only a very few or one or two in a specimen. Manahan found them most numerous in mucous patches. In tertiary conditions, they are often very sparse, one only being found in a given case according to Lehmann. Metschnikoff and Roux, in 1905, succeeded in inoculating and transferring syphilis in the Chimpanzee and later, in the lower

Apes as well. Any part of the body was susceptible, in the anthro-poid ape, but in the lower orders the eyelids and genitals only were successfully inoculated. The very young apes were often difficult of infection only subcutaneous and intraperitoneal infections were possible; the skin never. It seems only necessary to have enough material for inoculation to be successful in the horny epidermis of the older apes. Other animal experimentations seem to have been negative. Finger and Lansteiner have found an interesting condition as to immunity and the immunizing of animals. These observers report after inoculating an ape or man successfully, *i. e.* obtaining a primary lesion, that if they re-inoculated the same animal with a new material, a new lesion would appear only however up to the fourteenth day, not after. A shorter incubation then for the second inoculation. An active immunization by decreasing the virus has failed of results. Also passive immunization has not given results.

Many methods have been suggested for the demonstration of the Spirochaete as, for instance, the aspiration with a Pravaz syringe of papules or glands. In blood work, it is necessary to mix at least 1 ccm. of blood with ten times as much of one-third per cent. acetic acid solution and then to centrifugalize the corpuscles.

Giemsa's stain is most commonly used; this method of staining requires eighteen hours, however, and stains the Spirochaete very faintly.

Before giving the practical rapid method, it is necessary to draw attention to the presence about the genitals of a Spirochaeta most commonly seen there and which is not to be mistaken for the pallidum, *viz.*—the Spirochaeta refringens. This organism is broader, has longer and fewer curves and stains more intensely than the pallidum. There is no difficulty, says Manahan, in differentiating between the pallidum and the refringens after one has made many observations, with which statement I agree.

The method, which is that of Manahan, is as follows:

On experimenting with Dr. Wright's blood stains, Manahan found the organisms could be much more intensely stained in a period of five minutes than with Giemsa's stains. This rapid and more intense method of staining is a great advance as it saves time and makes the recognition of the organism comparatively easy.

The application of Wright's blood stains to the staining of smears obtained from syphilitic lesions is as follows: The stain is prepared according to the directions given in Mallory and Wright's "*Pathological Technique*," page 371.

Five-tenths of a gram of the dried methylene blue eosin precipitate is added to 100 cc. of pure methyl alcohol, Merck's guaranteed reagent, and after a concentrated solution is obtained, the solution is filtered. Take 30 cc. of the filtrate and add 10 cc. of pure methyl alcohol.

This solution is now ready for use and should be kept in a tightly-corked bottle to prevent evaporation. If evaporation takes place, a precipitate will form which will so obscure the specimen as to prevent the recognition of the organism.

The film is covered drop by drop with as much of the staining fluid as the cover-glass can conveniently hold and allowed to remain one minute. Water is then added, drop by drop, until a metallic film appears on the surface. In Manahan's experience, it was found that four drops gave the best results. The stain is now kept on for five minutes and then washed in water. The amount of water used should be just enough to remove the staining fluid. On examination, the red corpuscles should be a pale blue and the *Spirochaete pallida* purple. If the differentiation is carried any further with water, the *Spirochaete* do not stain as deeply. The cover-glass is dried over the flame and mounted in balsam. Preparations should be made with great care in order to prepare thin and evenly distributed smears. The method of obtaining the material depends upon the seat and character of the lesion. In chancres, where ulceration has taken place, the following method has been found most suitable: The lesion is washed with water and gauze, removing as much of the necrotic tissue as possible. At the junction of the ulcerated area with the indurated margin, a small incision, 4 mm. long and 2 mm. deep is made with a tenotome. The first few drops of blood are removed with gauze and the bleeding checked by pressure. Then with the back edge of the tenotome, a small amount of material from the bottom and sides of the wound is removed. This material, which will be blood tinged serum, is then placed on a $\frac{7}{8}$ -inch cover-glass, which has been carefully washed in absolute alcohol and ether and a smear made in the same manner as you would

prepare a blood smear. In mucous patches two methods are employed to obtain the material. The selection of the method to be used depends upon the character of the lesion. In fissures of the tongue or mucous patches which have gone on to ulceration, the lesion is washed with gauze and water. The necrotic material is then removed with a small blunt curette. After the bleeding has stopped, the face of the fissure or ulcer is gently scraped with the curette. The material thus obtained is placed on a cover-glass and a smear made. In early mucous patches before ulceration takes place, the procedure is as follows: The edge of the diseased mucous membrane is lifted with a tenotome and from the wound a drop or two of the blood tinged serum is placed on a cover-glass and a smear is made.

Preparations from the skin eruptions may be made by one of the two following methods: A bleb is made by the application of strong ammonia over the skin lesion. When a bleb is formed, remove the serum with a platinum loop and make a smear. According to Manahan, this method has not been satisfactory. Another and more satisfactory way is to scrub the skin thoroughly with alcohol and water. Then select a well-developed macule or papule and scrape off the upper layers of skin with a knife until a bloody serum exudes. A good-sized drop of bloody serum is allowed to form. Remove this drop by touching it with the surface of a cover-glass. The drop will adhere to the cover-glass and a smear is then made.

Following these methods, I have been able to find successfully the Spirochaete eleven times in twelve cases. Ten of these observations were made in Boston, with Manahan, two here. The negative finding has never proven to be syphilis.

After what has been said and quoted, it may seem presumption on my part to make this further statement, that I believe the Spirochaete pallida to be the cause of syphilis and that their presence in given preparation means that the patient has syphilis.

CONCLUSION.

1. The Spirochaete pallida are the cause of syphilis.
2. That, by using Manahan's rapid method of staining, we have a means of making a positive diagnosis of syphilis from the primary lesion in five minutes and that we are, therefore, justified in beginning treatment before the secondary symptoms appear,

and that in the hands of a careful observer, with some experience, there is not the slightest difficulty in differentiating the *Spirochaeta pallidum* from all other Spirochaete and especially from the "refringens" with which it is most often associated, or may possibly be confused.

DISCUSSION.

DR. BASS: I want to thank the doctor for the able paper he has written for my section and for calling our attention to this recent and important advance in the early diagnosis of syphilis. I would like to leave an impression also that so far as my experience has gone it requires quite an expert to distinguish this organism; so that negative findings by anyone save an expert like Dr. Weis would be of very little value. A negative report from me, I am sure, would be of little value.

DR. WEIS (in closing): I think the more one looks at these things, the easier it becomes not only to remember the curves, but the general appearance and the depth of the curves. After you have once seen the Spirochaete it is a simple matter to recognize them even without being an expert.

Dr. Joseph Hume read a paper on "The Gonococcus."

(Manuscript not furnished Publication Committee.)

DISCUSSION.

DR. WEIS: I would like to ask Dr. Hume one thing about the cultural media. He omitted reference to the reaction. I have understood that it was necessary for the reaction to be alkaline to get a growth. It has been argued that therefore the best treatment was to give something that would cause the urine to be constantly acid. This is because the gonococcus will not grow excepting on alkaline media. I would like to ask his opinion. I know that Finger gives salicylic acid to patients with gonorrhea with the object of keeping the urine acid and so obviate any favorable condition towards the growth of the gonococcus.

Orleans Parish Medical Society Proceedings.

President, DR. AMÉDÉE GRANGER.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.
DR. HOMER DUFUY and DR. S. K. SIMON.

MEETING OF JUNE 13, 1908.

DISCUSSION OF DR. RICHARDS' PAPER.

DR. BATCHELOR: I have listened to the paper of Dr. Richards with a great deal of pleasure; and I consider it a valuable contribution to the literature of the subject. It is peculiar that notwithstanding the expressed views of Edebohls and others as to the benefits to be derived from this operation, it is not more frequently done in this city. As an operative procedure, it is easily done by an experienced surgeon, and it seems to offer the only hope of recovery in certain nephritic conditions. Some misconception, however, exists in this country and in Europe with respect to the object sought in operating. It is not so much to relieve renal tension as to establish a new blood supply that decapsulation is done. It has been found that in contractions of the capsule the most harmful result is shutting off of the normal blood supply to the kidney substance, and that as a consequence the organ is not fed with sufficient blood to maintain the integrity of its proper tissue and insure its functioning. Experiments upon dogs have shown that the newly formed capsule, after decapsulation, does not contract and that it is more succulent and better supplied with blood than the old. At least one autopsy on man now confirms this fact. Another point about which there is considerable misunderstanding is as to whether the decapsulated kidney should be anchored to the muscles of the back or dropped back to lie loosely in its bed. Anchoring should not be done, as the newly established blood supply so much desired is interfered with. It is, therefore, best to simply drop the kidney back into the fatty capsule and allow it to assume its new relations with contiguous structures without interference. This operation is not only indicated in suitable cases of parenchymatous and interstitial, but also in diffuse nephritis. Also in renal conditions of the puerperium with eclampsia, it may be adopted as a life-saving measure,

to start the urinary flow, which may be confidently expected Edebohls reports good results in such cases.

Personally, I have done only one decapsulation and in that instance the patient was in extremis. A rudimentary kidney was found. Under such conditions, no benefits could, of course, be looked for, and the patient died. The shortest period within which improvement may be expected to take place is one month, but rarely so early. It is manifestly unfair to judge of the advantages of the operation until more time has elapsed. Improvements may be expected to continue as long as two and half years. I wish to congratulate Dr. Richards on his able treatment of this subject.

REPORT OF CASES AND MEDICAL NEWS.

A New and Valuable Diagnostic Point When Locating Foreign Bodies by Means of the X-Ray.

DR. GRANGER exhibited a series of skiagraphs to illustrate: A means of determining whether a forcing body showing in a skiagraph is within or without the bone substance, in instances where it is impossible to determine this ordinarily. In the event of the missile being imbedded in the bone, a good skiagraph shows a zone completely surrounding the object, which zone is of a lighter shade than that of the bone in which the foreign body is imbedded, whereas if the object lie upon the surface of the bone or very close to same, no such phenomenon is produced in the negative. Such is not the case if the foreign body is not imbedded in the bone, even though if the latter and the foreign body both lie in the path of the X-rays and show in the negative in such a manner that from one single ordinary skiagraph taken without special device and in only one position of the tube and part it would be impossible to tell whether the foreign body was in front or behind or in the bone.

The author has found this index of special service in locating bodies in parts which, like the spine and hip, can only be skia-graphed satisfactorily in one position.

DR. W. W. BUTTERWORTH reviewed the most important papers read before the Pediatric Society of the A. M. A. at its last meeting, commenting on the more important and novel points of each article and discussion in turn. Increased interest and attendance marked the meeting of this section for 1908, which was pronounced the most successful yet held.

Communication.

Louisiana State Board of Medical Examiners.

NEW ORLEANS, La., Aug. 20, 1908.

Editors New Orleans Medical and Surgical Journal.

Dear Doctors: Although we have the right, entirely at our discretion, to grant licenses without examination since August 8, 1908, as per recent Act of the Legislature, the Board will not meet before the end of September to take any action on this new phase of the law.

Until then a temporary permit can be procured by paying \$5.00, and by showing diploma from a college recognized by our Board, and passing a satisfactory oral examination before any one member of the Board. This temporary permit will be good until October 1, 1908, date of next regular examination.

Yours very truly,

FELIX F. LARUE, M. D.,

Secretary and Treasurer.

[In the above, Dr. Larue evidently refers to the reciprocity clause in Section 2 of the Amended Act, published elsewhere in this issue, in favor of licentiates of other Boards. We call attention to this point as the wording of the first paragraph might lead the unthinking to believe that *all* examinations were henceforth to be discretionary with the Louisiana Board.—EDS.]

FOR COUGH.—It is well known how often the paroxysms of whooping cough become unbearable, leaving the patient exhausted. Similar spells of coughing occur in adults during or after the grip, that seem to resist all treatment. A similar condition is sometimes met with in cigarette smokers. A writer in "*La Habana Medica*," who was a victim of such paroxysms, describes a prompt and certain means of relief. He had been subject to these spells, which recurred three or four times a year, and lasted two or three weeks at a time, and came on usually at bedtime; they were quieted only by application of a solution of cocaine.

Once it occurred to him to moisten a pledget of absorbent cotton on an applicator with ether, and, holding it free in the throat to inhale strongly the vapor of the ether. The cough stopped almost instantaneously, and did not return that night nor the next day. He frequently resorted to this simple procedure afterwards, and always with unfailing success. He has never tried it in whooping cough, but believes that it holds out a good prospect of relief. [A. McS.]

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Medical Law of Louisiana.

We publish below the law regulating the practice of medicine in this State. We print it in full as at present effective, as there might be confusion otherwise. It will be noted that only Sections 2, 6, 13, 14, 15, 19, and 20 have been changed.

ACT 49 OF 1894 AS AMENDED BY ACT 244 OF 1908.

AN ACT

To regulate the practice of medicine, surgery and midwifery; to create State Boards of medical examiners, and to regulate the fees and emoluments thereof; to prevent the practice of medicine, surgery and midwifery by unauthorized persons; and to provide for the trial and punishment of violators of the provisions of this act by fine or imprisonment, or both; and to repeal all laws or parts of laws in conflict or inconsistent with this act.

SECTION 1. Be it enacted by the General Assembly of the State of Louisiana, That from and after the promulgation of this act, no person excepting those already engaged under existing laws in the practice of medicine, surgery, midwifery and dentists shall practice medicine in any of its departments within the State of Louisiana, unless such person shall possess all the qualifications required by this act.

As amended by Act 244 of 1908. SEC. 2. Be it enacted by the General Assembly of the State of Louisiana, That Section 2 of an Act to regulate the practice of medicine, surgery and midwifery, to create State Boards of Medical Examiners, and to regulate the fees and emoluments thereof, to prevent the practice of medicine, surgery and midwifery by unauthorized persons; and to provide for the trial and punishment of violators of the provisions of this Act by fine and imprisonment, or both; and to repeal all laws or parts of laws in conflict or inconsistent with this Act," being Act No. 49 of the General Assembly of the State of Louisiana, for the year 1894, approved July 4, 1894, be amended and re-enacted so as to read as follows: That after the promulgation of this Act, any person before entering upon the practice of medicine in any of its branches, dentists and osteopaths excepted, shall present to the Board of Medical Examiners, as hereinafter constituted, a diploma from a college in good standing, of any sect teaching medicine or the healing art, and shall stand a satisfactory examination before the Board upon the following branches, to-wit: Anatomy, physiology, chemistry, obstetrics, gynecology, physical diagnosis, surgery, pathology, therapeutics and hygiene, provided that any person not using internal medication in his or her practice shall be exempt from examination in

therapeutics. The person shall also satisfy the Board that he or she is twenty-one years of age, of good moral character, and possesses at least a fair primary education. If said diploma and examination are satisfactory to the Board, they shall issue to such person a certificate in accordance with the facts. Said Board, however, is authorized, at its discretion, to waive said examination in favor of any applicant who shall present to the Board a satisfactory certificate of examination from a Board of Medical Examiners of another State; provided, however, that said Board created under this Act shall have found that said Board of Medical Examiners of another State has a standard of requirements satisfactory to the Board created under this Act; the said Board created under this Act to be the sole judge as to the sufficiency of the standard required and of the certificate issued by said Board of another State.

SEC. 3. Be it further enacted, etc., That the medical examiners herein provided for shall consist of two boards—one of physicians and surgeons recommended by the Louisiana State Medical Society, and one of physicians and Surgeons recommended by the Hahneman State Medical Society. There shall be five members of each board, any three of whom shall constitute a quorum for the purpose of holding an examination and granting a certificate. All the members of both boards shall be graduated physicians and practitioners.

The Board composed of physicians and surgeons recommended by the Louisiana State Medical Society shall examine all applicants who propose to practice any other than the homeopathic system of medicine, and the board composed of physicians recommended by the Hahneman State Medical Society shall examine all applicants who propose to practice the homeopathic system of medicine. The certificate of either Board shall be conclusive proof of the efficiency of the applicant examined by said board. All examinations held by the boards and the answers of the applicants shall be in writing, and shall be kept as records. All members of both boards shall be appointed by the Governor of the State from a list of names presented by the Louisiana State Medical Society and the Hahneman State Medical Society, and the Governor shall have the right to remove any or all of the members thereof for inefficiency or neglect of duty, and to fill all vacancies occurring in these boards from names recommended by their respective societies.

SEC. 4. Be it further enacted, etc., That the first boards of medical examiners appointed under this act shall meet and organize within thirty days from the date of their appointment, and shall name one member to serve for the term of two years, one member for the term of three years, one member for the term of four years, one member for the term of five years, and one member for the term of six years; deciding by lot or agreement among themselves as to their respective terms. At the expiration of the above terms each member shall be appointed by the Governor for the term of six years, from names recommended by their respective State Medical Societies.

SEC. 5. Be it further enacted, etc., That every person practicing midwifery in this State, on the passage of this act, shall, within ninety days thereafter, register with the secretary of the board of health, in the parish of Orleans, and with the clerk of the district court in the other parishes of the State, in the manner provided for physicians, giving her age and length of time, and the place or places during, and at which, she has been engaged in said practice, and make affidavit thereto, and shall pay to the secretary of the board of health in the parish of Orleans, or to the clerk of the district court in the other parishes of the State, as

the case may be, a fee of \$1. Said secretary of the board of health of the parish of Orleans, or clerk of the district court, shall issue a certificate to the one so registering in accordance with the facts herein set forth, upon a blank form to be furnished by the State board of health, which shall entitle the holder to practice midwifery in the parish in which said certificate is issued. The clerks of the district courts of the several parishes of the State, Orleans excepted, shall annually on the first Monday in January make returns to the secretary of the State board of health in the parish of Orleans of all such certificates on record in his office.

All persons beginning the practice of midwifery in this State after the passage of this act, shall appear before one of the State boards of examiners and submit to such examination in midwifery as the Board shall require, and if such examination is satisfactory, the said board shall, upon receipt of \$5, issue a certificate the same as provided for midwives in practice at the time of the passage of this act, which certificate shall be registered as in the manner provided for midwives in practice at the time of the passage of this Act, but for such registration with the secretary of the State board of health, or with the clerk of a district court, the holder of said certificate shall be required to pay a fee of 50 cents only. This section does not apply to the so-called mid-wife of rural districts and plantation practice, who, in the sense of this act, are not considered as practicing midwifery as a profession.

SEC. 6. Be it further enacted, etc., "That Section 6 of said Act No. 49 of the session of 1894 be amended so as to read as follows: That the Boards of Medical Examiners are authorized to elect such officers and frame and adopt such by-laws as may be necessary for the efficient operation of the Boards.

They may provide that the examinations required in Section 5 of said Act, as a prerequisite to the practice of midwifery may be conducted by one member of said Boards of Examiners, and the certificate of satisfactory examination issued by such member shall entitle the holder to be authorized by the President and Secretary of said Boards to practice midwifery in this State; and may also provide that any member of said Board may make any affidavit necessary to the issuance of any injunction or other legal process authorized under this Act. Each Board shall have its seal and the President and Secretary of the respective Boards shall be empowered to administer oaths in the taking of testimony upon any matter appertaining to the duties of said Boards.

SEC. 7. Be it further enacted, etc., That the regular meetings of the boards shall be held at least twice in each year in the city of New Orleans, but the President of the board may call special meeting elsewhere in the State whenever the boards may deem it necessary or expedient; the call to be issued by the secretary and signed by the president.

SEC. 8. Be it further enacted, etc., That to prevent delay and inconvenience, one member of a board of medical examiners may grant a permit after a satisfactory examination to any applicant, and shall report thereon to the boards at the next regular meeting; such temporary permit shall not continue in force longer than until the next regular meeting of the boards, but such temporary permit shall in no case be granted within six months after the applicant has been refused a permit by the boards.

SEC. 9. Be it further enacted, etc., That the certificates issued in accordance with Section 2 of this act shall be recorded in the office of the clerk of the district court of the parish in which he or she resides, who shall make this recordation in a book to be kept for that purpose only, and also certify to such recordation by an endorsement of the original

certificate, which the holder thereof shall transmit or deliver to the State Board of health; and the clerk recording the same shall be entitled to a fee of one dollar. Such certificate transmitted or delivered to the State board of health shall entitle the holder to be placed on the list of registered physicians and surgeons, the publications of which is hereinafter provided for. Said board of health shall preserve such certificates, and a copy thereof, signed by its secretary, shall be received as evidence in the courts of this State, and for such copy a fee of fifty cents shall be paid. Until such recordation is made, the holder of such certificate shall not exercise any of the rights or privileges therein conferred to practice medicine.

SEC. 10. Be it further enacted, etc., That it shall be the duty of the State board of health to publish annually in the official journal of the State (and if there is no such journal, in one of the daily newspapers published in the city of New Orleans) a list of the registered physicians and surgeons in the State and their residences, and such published list shall be received in evidence by the courts of this State as proof that the physicians and surgeons therein named are duly registered as required by law, and the said State board of health is hereby required to strike from said list the name of any person whose certificate may have been revoked by the State Boards of Medical Examiners, as herein provided for.

SEC. 11. Be it further enacted, etc., That the members of said boards of medical examiners shall receive, as a compensation for their services, ten (\$10) dollars per day during their session, and, in addition thereto, their hotel and traveling expenses by the most direct route to and from their respective places of residence, to be paid out of any moneys in the treasury of the boards upon the certificate of the president and secretary. The boards are empowered to demand a fee of one (\$1) dollar for the issuing of each certificate. The fee for examination shall be ten (\$10) dollars. If the applicant fails to pass a satisfactory examination, and no certificate is issued to him or her, five (\$5) dollars, to be paid into the treasury of the boards, only of his or her fee is to be retained. The fee for certificate of temporary permit shall be five (\$5) dollars, to be paid into the treasury of the boards, said fee to be accredited to the applicant when he applies to the boards for a permanent permit.

SEC. 12. Be it further enacted, etc., That any itinerant vendor of any drug, nostrum, ointment or application of any kind, intended for the treatment of disease or injury, or who may by writing, print or other methods, profess to cure or treat disease or deformity by any drug, nostrum, manipulation, or other expedient in this State, shall, if found guilty, be fined in any sum not less than twenty (\$20) dollars and not exceeding one hundred (\$100) dollars for each offense, to be recovered in an action of debt, before any court of competent jurisdiction, or shall be imprisoned for a term of not less than ten (10) days or more than thirty (30) days, or be both fined and imprisoned.

SEC. 13. Be it further enacted, etc., That Section 13 of said Act 49 of the session of 1894 be amended and re-enacted so as to read as follows: That any person shall be regarded as practicing medicine within the meaning of this Act who shall append the letters M. D. or M. B. to his or her name, or shall examine, prescribe, direct, or apply, or shall profess or publicly advertise that he prescribes, directs or applies for the alleged purpose of treating, curing or relieving any bodily or mental disease, infirmity, deformity, defect, ailment or injury in any person other than himself, any drug, instrument,

As amended by
Act 244 of 1908.

or force, whether physical or psychic, or of whatever nature, or any other agency or means; whether such drug, instrument, force or other agency or means is to be applied or used by the patient or by any other person; and whether such prescribing, directing, or applying, be for compensation of any kind or be gratuitous; and any officer or agent, or employee or member of any corporation, association or partnership which does or professes or publicly advertises that it does examine for, cure, treat, or relieve such diseases, ailments, deformities, defects, injuries or infirmities, in any of the modes mentioned in this section shall be regarded as practicing medicine under the provision of this Act.

This provision shall not apply to farmres or planters when treating without compensation their families, employees, or tenants exclusively, or to attendants and plantation midwives; or to opticians fitting glasses, or testing eyes in their own establishments, or to water-cure establishments. Nothing in this Act, however, shall be construed to prohibit the practice of the religious tenets of any church whatsoever.

SEC. 14. Be it further enacted, That Section 14 of said Act 49 of the Session of 1894 be amended and re-enacted so as to read as follows: That any person practicing medicine or midwifery in any of its departments in this State without first having obtained the certificate herein provided for or contrary to the provisions of this Act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than \$50, or more than \$100, or by imprisonment in the parish jail for a period of not less than ten days, or more than ninety days, or by both fine and imprisonment for each offense. It shall be the duty of the respective district attorneys to prosecute violations of the provisions of this Act, before any court of competent jurisdiction. The said fine shall be divided equally between the public school fund of the parish in which said offense may have been prosecuted, and the State Board of Medical Examiners.

Said Board of Medical Examiners through their proper officers may cause to issue in any competent court a writ of injunction forbidding and enjoining said person from further practicing medicine or midwifery in any of its departments in this State, until such person shall have first obtained the certificate herein provided for and under the provisions of this Act; and said injunction shall not be subject to being released upon bond.

In the same suit in which said injunction may be applied for, the said Boards through their respective Presidents aforesaid, may sue for and demand of the defendant a penalty not to exceed one hundred dollars, and in addition thereto attorney's fees not to exceed fifty dollars, besides the costs of courts; judgment for which penalty, attorney's fees, and costs may be rendered in the same judgment in which the injunction may be made absolute.

That the trial of said proceeding shall be summary, and be tried by the judge without intervention of a jury.

SEC. 15. Be it further enacted, etc., That Section 15 of Act 49 of the Session of 1894 be amended and re-enacted so as to read as follows:

That if any person licensed under this Act shall be convicted of a crime or of gross unprofessional conduct, the said Boards shall have the power to institute proceedings before any competent court for the purpose of having the permit or license granted by them to such person revoked; and if it shall be shown that the physician or midwife so licensed has been convicted of a crime or of gross unprofessional conduct, the said court shall revoke such license or permit.

SEC. 16. Be it further enacted, etc., That any practitioner of medicine, in any of its departments, failing to comply with the requirements of this act, shall not be exempt from jury or military duty, nor be permitted to collect any fees or charges for services rendered, nor be allowed to testify as a medical or surgical expert in any court in this State, nor execute any certificates as a physician or surgeon, nor to hold any medical office, nor to be recognized by the State or parish or municipal corporation as a physician or surgeon; nor shall he be entitled to enjoy any of the privileges, rights or exemptions granted to physicians or surgeons by the laws of this State.

SEC. 17. Be it further enacted, etc., That this act shall not apply to any commissioned surgeon of the United States army, navy, or marine hospital service; to physicians or surgeons from other States or territories in actual consultation with a registered physician of this State, nor to any physician actually practicing in this State before the passage of this act and in accordance with then existing laws.

SEC. 18. Be it further enacted, etc., That the said boards shall report to the prosecuting officer of the State of Louisiana all persons violating the provisions of this act. They shall report, annually, to the Governor of this State upon the condition of the practice of medicine in the State, its recommendations for the improvement of the practice, as well as a record of the proceedings of the board during the year, together with the names of all physicians or surgeons to whom the said board shall have issued certificates during the year, in accordance with the provisions of Section 2 of this act.

SEC. 19. Be it further enacted, etc., That Section
As amended by 19 of the said Act 49 of the Session of 1904 be
Act 244 of 1908. amended and re-enacted so as to read as follows:

That it shall not be lawful for the said Boards of Medical Examiners or any member thereof, in any manner whatever or for any purpose, to charge or obligate the State of Louisiana for the payment of any money except as provided for in Act 44 of the Acts of 1882, relative to the publication of registered physicians, etc., and the said Boards shall look alone to the revenue derived from the operation of this Act for the compensation designated in Section 11 of this Act. And if said revenue is not sufficient to pay each member in full, as per Section 11, then the amount thus received shall be pro rated among the members. But if at the end of the year, there should be a greater revenue derived than sufficient to defray the expenses of the Boards at all their sessions for the year, as provided in Section 7, such surplus may be used by said Boards in such other expenditures as they may deem necessary. The said Boards of Medical Examiners shall have the right to employ counsel to carry out the provisions of this Act, and that the fees of such counsel and the cost for all proceedings taken under the provisions of this Act, except the criminal prosecutions, shall be payable exclusively out of the revenues, including penalties under the provisions of this Act.

SEC. 20. Be it further enacted, etc., That Section
As amended by 20 of said Act of the Session of 1894 be re-enacted
Act 244 of 1908. so as to read as follows: That all laws and parts
of laws contrary to and in conflict with any of the
provisions of this Act be and the same are hereby repealed.

The International Congress on Tuberculosis.

This Congress will assemble on September 21, in Washington, D. C., to remain in session until October 12. All members of the Louisiana State Medical Society intending to attend have been requested to so notify the secretary of the society, and we trust it will be a goodly number. It would be difficult to exaggerate the good it is possible for this Congress to achieve as there is perhaps no question, certainly no medical topic, which can claim greater importance than this of the great white plague. Its interest is of all climes, all races, all ages, all classes. Although people of all avocations are equally interested, the responsibility is mainly that of the members of the medical profession who must be the educators, the pioneers, the blazers of the way.

Louisiana has been no laggard in the study of the subject, and in the carrying out of practical measures evolved from such work. Let it do its part in this Congress which should be epoch making.

Acetylene in Surgical Work.

The difficulty of judging accurately the condition of tissues by artificial light is well understood to be due to the excess of one color or the other of the spectram in any given illuminant. Some have an excess of red, others of green, or violet, or yellow.

Acetylene is claimed to have the seven primary colors in such intensity as to differ with sunlight to a negligible extent. On this account it is claimed that acetylene gives the best light for surgical work at night, and for medical observations whenever artificial illumination is required.

It may be used in the form of a portable lamp, or of a complete system furnished by cylinders or a modern house generator.

As stated in a paper recently by A. C. Morrison: "Acetylene illumination is recognized of immense value by dye houses, lithographers, artists and others who require to discriminate closely between different shades and colors and men of the profession will not be slow to add to their equipment so simple an improvement."

Abstracts, Extracts and Miscellany.

Department of Ophthalmology.

In Charge of Drs. BRUNS and ROBIN, New Orleans.

NECESSITY OF CESARIAN SECTION INDICATED BY OCULAR AFFECTION—At the session held in February, 1908, of the Berlin Society of Medicine, Dr. Hamburger related a very curious case, showing the patient, in which an ocular affection served as an urgent indication of the Cesarian section.

This observation concerns a woman, aged twenty years, who, blind in one eye since birth, was stricken suddenly during her first pregnancy, with a lesion of the other eye, which reduced its vision to one-tenth of normal.

Clinical examination of this patient, who was at the end of the eighth or the beginning of the ninth month of pregnancy, revealed an extensive retinal hemorrhage at the macula, the region so important for central vision. The situation appeared a critical one, as the patient was menaced with total blindness. The urine was found to contain traces of albumen. It was, therefore, decided to bring about premature delivery, and Cesarian section per vaginam was practised without accident to mother or child. Following this operation, vision returned to normal, and examination by ophthalmoscope revealed nothing beyond a small patch of pigment at site of hemorrhage. The general health of mother and child at present are perfect.—*Recueil D'Ophthalmologie*.

Department of Nervous and Mental Diseases.

In Charge of Drs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

DIAGNOSIS OF ORGANIC FROM FUNCTIONAL AFFECTIONS OF THE NERVOUS SYSTEM. (J. S. Risien Russell, *Brit. Med. Journ.*, March 14, 1908.) Cases where the question arises of differential diagnosis between organic diseases and functional disturbance of the nervous system fall into one of four classes: First, cases of organic diseases showing physical signs characteristic of organic disease; second, functional cases with physical signs indicating the func-

tional nature of the affection; third, cases of organic diseases with no physical signs characteristic of such; and fourth, cases of functional disorder without physical signs typical thereof. Cases falling into the first two classes are comparatively simple. The second two classes present greater difficulties.

1. Organic disease, with physical signs. Ophthalmoscopic examination may reveal the presence of optic neuritis or atrophy. These are never found in uncomplicated functional conditions. Absence of the knee-jerks or presence of the exterior type of plantar reflex justifies a diagnosis of organic trouble. Presence of the extensor plantar reflex is often the chief sign diagnostic of disseminated sclerosis as opposed to hysteria or neurasthenia.

Care must be taken not to misinterpret physical signs.

Exaggeration of the knee-jerks must not be regarded as necessarily due to an organic lesion, unless associated with a true ankle clonus, the extensor plantar reflex, or other undoubted sign of organic disease. Any associated abnormality must also be correctly interpreted. For example, exaggeration of the knee-jerks associated with pes cavus does not of necessity mean spastic paraplegia, nor if nystagmus be present with it, is a diagnosis of disseminated sclerosis necessarily correct. Signs of organic disease may appear late in the history of the case. It often happens that pains in the lower limb, which first appear to be due to sciatica, ultimately prove to be due to organic pelvic trouble. It should be remembered that when there is only functional disturbance of the sciatic nerve, the ankle-jerk is commonly increased; whereas, when the nerve is damaged, the jerk is diminished or abolished. Cases regarded as neurasthenia in the early stages may, after many months, show signs of organic nerve disease.

2. Functional affections, with physical signs. In cases of hysterical paralysis, the muscles antagonistic to the paralyzed muscles may often be found to be in action, when the attempt is made to use the paralyzed muscles. Thus, supposing the quadriceps extensor to be affected, if, with the patient in bed, the observer reflex the limb, resist the patient's attempt to extend it, and then withdraw the resistance, in the case of organic paraplegia the limb falls to the bed in the extended position; whereas, in the case of hysterical paralysis, the limb may remain slightly flexed because the hamstring muscles are in action.

In other cases, the knee- and ankle-jerks may remain normal where one would expect a change were the conditions organic, or anesthesia may be present where the possible organic disease suggested would show none.

3. Organic disease, without physical signs. The best example in this class is paralysis agitans in its early stages. In a case which looks like one of neurasthenia, loss of power confined to one side or to one limb, stiffness of the limbs or inequality of the tendon jerks on the two sides should suggest the possibility of paralysis agitans. The knee-jerk is often more active on the side on which the paralysis agitans begins, and the ankle-jerk diminished or absent on the same side. Diagnosis of paralysis agitans may be quite justified, although the patient be young, and though the tremors be in abeyance when the patient thinks herself unobserved. Tremors may sometimes be noticed in the muscles of the face, tongue, or jaw of a nature characteristic of paralysis agitans. There is often an indefinite something in the general appearance and mode of progression strongly suggestive of paralysis agitans.

Diagnosis in this class of case is often more difficult because the circumstances of onset may be those under which functional affections commonly arise.

4. Functional affections, without physical signs. Under this head a case is cited where chorea, a diagnosis of which seemed otherwise to be natural conclusion, was excluded by the fact that the speech affection which was present was not at all like that characteristic of chorea. Another case is mentioned where the presence of organic disease was negatived by the complete absence of any physical characteristic of organic disease, by the fact that station and locomotion, while abnormal, were not typical of any particular organic disease.

In these cases the faradic current and the assurance that it would be effective cured the condition.

Miscellany.

DECHLORINATED DIET IN PEMPHIGUS. (By Micheleau, *Archiv Gen. de Med.*, July, 1907.)—The author adds another case of pemphigus of alimentary origin successfully treated by dechlorinated diet to the two previously published by Cassaet and himself in the same journal (January, 1906). In the present case, a man of 64 years, symptoms of gastro-intestinal catarrh and of congested liver had been present ten or eleven days, swelling of the hands eight

days, before admission to the hospital. On examination enormous swelling of the hands and an enlarged and tender liver, reaching 5 cm. below the costal margin, were noted, while the urine contained a slight trace of albumen. The chlorides in the urine were diminished in quantity. The patient was treated by purgation, and later also by a mixed diet, consisting chiefly of milk and its products. Bullæ shortly developed on the hands. Eight days after admission the elimination of chlorides was normal, but the condition of the hands was only slightly ameliorated. A dechlorinated diet was then prescribed, which was immediately followed by rapid improvement in the hands and diminished elimination of chlorides. In five days cure was nearly complete, and the patient was allowed ordinary diet. The elimination of chlorides at once rose considerably above the normal, and remained so for several days. On the seventh day it showed a tendency to return to normal. The two previously reported cases had presented the same general symptoms, retention of chlorides, and favorable reaction to a dechlorinated diet. The researches of Achard, Javal, Widal, Lemierre, etc., show that edema of cardiac or renal origin disappears on a diet free from chlorides, and reappears when chlorides are again taken. This seems to Micheleanu to indicate a relation of cause and effect between retention of chlorides and serous effusions. He is, nevertheless, more inclined to regard both as common symptoms of a general toxic condition. In the present case he considers the retention of chlorides not as an etiological factor, but merely as a symptom, valuable, however, for its prognostic significance. If one accepts Professor Gautier's view that sodium chloride is necessary for the dialysis of toxic products, excessive elimination of chlorides is indispensable during the process of cure, and one may suppose that during their retention the chlorides are neutralizing or fixing in some measure the toxins which are afterwards eliminated with them. Thus excessive output of chlorides indicates the amount of cure. In conclusion, Micheleanu points out that the retention of chlorides is one of the most frequent signs of autoinfection, and that pemphigus is only another sign of the same, that since cure began at the commencement of treatment, and was henceforward rapid, the dechlorinated diet has hastened the cure, and it is to be recommended in the treatment of most toxic infections; and, finally, that excessive elimination of chlorides is of great prognostic importance. (*St. Paul Medical Journal*, January, 1908.)

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

MINUTES OF THE TWENTY-NINTH ANNUAL SESSION.

HELD AT ALEXANDRIA, LA., MAY 12-14, 1908.

(Continued from last month.)

DR. E. J. GRANER read the following report as Chairman of the Council:

Mr. President, Officers and Members of the Louisiana State Medical Society:

GENTLEMEN: As Chairman of the Council I have the honor to submit the following as my report:

In our seven Congressional Districts we have forty component organizations. Each district having the following number:

First District (part of Orleans).....	2
Second District	3
Third District	5
Fourth District	9
Fifth District	10
Sixth District	5
Seventh District	6

—
40

The following list shows the number of parishes that are not organized in the various districts:

First District	1
Second District	1
Third District	3
Fourth District	All organized
Fifth District	6
Sixth District	7
Seventh District	2

—
20

We have in the State at large about nineteen hundred physicians

with diplomas. We have about one hundred and twenty-five without diplomas.

The population of the State, estimated at 1,381,625, gives us one physician to every 682 population.

Three component societies have been organized since our last meeting.

The medical organization of the State of Louisiana today is the best that we have ever enjoyed. Our work is only in its infancy. We all must realize what it means to the profession, to us individually, to pull together. The Council takes this opportunity to urge upon the members at large to make special effort to attend the meetings of their local society, to become acquainted with each other, sift out what little imaginary troubles that you might think you have against the other fellow, or he against you.

The Council by an unanimous decision and at the request of the Rapides Parish Medical Society changed the date of the meeting from April 28, 29 and 30 to May 12, 13 and 14.

Respectfully,

E. J. GRANER, Chairman of the Council.

DR. E. J. GRANER read the following report as Councillor:

Mr. President, Officers and Members of the Louisiana State Medical Society:

GENTLEMEN: My report as Councillor for the Second Congressional District is respectfully submitted as follows:

The Second Congressional District, comprising that part of New Orleans from Julia street to upper city limits, with the Parishes of St. James, St. John-St. Charles and Jefferson.

We have in the district three societies—St. James Parish Society, St. John-St. Charles Bi-Society and Orleans Parish Medical Society.

The following list shows the number of physicians located in the various parishes through the district:

St. James	17
St. John	12
St. Charles	3
Jefferson	8
Orleans	712

Making a total of..... 752

The classification here made of the above number is of interest, as it shows the conglomeration of doctors practicing the healing art in the district:

Orleans. St. James. St. John. St. Charles. Jefferson.

Regular	647	17	12	3	7
Women	10	..	..	..	1
Homeopath ...	11	..	..	..	..
Colored	12	..	..	..	..
No diploma ...	32	..	..	..	..
Osteopath	7	..	..	..	..
“ female.	1	..	..	..	..

We have also in the district, I am sorry to say, about twenty chronic advertising quacks. Some of these specialists have never been inside of a medical school of any kind and I doubt if they ever read a book on medicine.

It is very painful indeed to report that a few of these quacks are graduates of Tulane.

We have had two deaths in the district since our last session.

The library as maintained by the Orleans Parish Society is growing in importance and usefulness, over 8,000 books are at the command of those who seek the knowledge from its great storehouse.

We have in the city of New Orleans over one hundred midwives. Some of these women are well trained and do good work.

Respectfully,

E. J. GRANER,

Councillor Second Congressional District.

DR. JOHN L. SCALES, Councillor Fourth Congressional District, read the following report:

To the President and Members of the Louisiana State Medical Society:

GENTLEMEN: In the Fourth Congressional District, of which I have the honor to be Councillor, there are nine (9) parishes, with eight (8) parish societies, as follows, viz: Bienville, Bossier, Caddo, DeSoto, Natchitoches, Red River, Sabine, Webster and Winn; each parish is represented, however, as Natchitoches and Red River have a joint bi-parish society.

The following statistical report, which is as accurate as could be

obtained, shows the number of registered physicians, the number of members of parish societies, and the number of unregistered physicians in each parish:

Parish—	Registered.	Members.	Unregistered.
Bienville	31	20	6
Bossier	22	16	2
Caddo	82	51	2
DeSoto	33	15	1
Natchitoches	36	15	8
Red River	11	15	1
Sabine	24	11	5
Wekster	18	10	6
Winn	26	11	3
	<hr/> 283	<hr/> 149	<hr/> 34

These figures summarized show, among other thing, that approximately only 50% of the registered physicians are members of their parish societies.

A significant statement to which attention will be directed later on, and which allows ample opportunity for personal work of a missionary character.

I consider the visit of Dr. MacCormack the most eventful thing that has occurred in our State during the past year. I had the pleasure of participating in the meetings held by him and our worthy President, to whose persistent and disinterested efforts the success is largely due, at both points in my district, viz: Shreveport and Natchitoches.

I am glad to say that at both places Dr. MacCormack was enthusiastically received by both the people and the profession who heard him. The regrettable fact is, however, that only a small percentage of either was reached in my section.

The effect on those physicians who did hear him, so far as I am able to judge, was stimulating and inspiring. One of the concrete evidences of this fact is that at Shreveport the post-graduate course of study which he so earnestly advocated has been undertaken with excellent results.

Dr. MacCormack directs his energies particularly to the up-building of the local societies by urging and showing the feasibility

of adopting such methods as will make them interesting and helpful: believing that when these objects are accomplished they will be attractive to all classes of physicians.

The local societies being the units of which the State Society is composed, and on whose integrity its very life, to say nothing of its success, depends, this feature of his work impresses me as being of fundamental significance in any State.

Especially so in a State where such a large per cent of the registered physicians are not members of the State Society as in Louisiana.

I would recommend to this society, therefore, that provision be made for a second tour of the State by Dr. MacCormack before the results of the first shall have been forgotten, believing that in this way the resulting benefits will be multiplied many fold.

Respectfully submitted,

JNO. L. SCALES,

Councillor Fourth Congressional District.

Alden Bridge, La., May 11, 1908.

The dropping of delinquent members from the rolls passed over temporarily.

The Secretary reported two applications for membership from unorganized parishes—Drs. John L. Money of Centreville, St. Mary Parish, and T. F. Booth of Transylvania, East Carroll Parish. The applications, being properly endorsed, were referred to the Council.

The list of component societies in good standing having been included in the Secretary's report, was passed.

The Committee on Scientific Work presented its report through Dr. Thibaut, who presented the program as the report of the committee calling attention to some special difficulties encountered by the committee in the publication of the program. The omission of a paper by Dr. Weis from the program and some errors were pointed out, with the request that the program as corrected be adhered to. On motion the report was adopted.

DR. CHASSAIGNAC presented a brief oral report of the Committee on Public Policy and Legislation, and suggested that the report of his committee be not read in extenso until the report was taken

up for consideration on the third day. On motion of Dr. Martin, it was so ordered.

The report of the Committee on Publication was presented by Dr. Thibaut, who stated that the report as prepared had not yet arrived. He stated that all papers furnished the committee at the last meeting had been published. The report was received.

DR. E. J. GRANER, acting for DR. JOHN CALLAN, chairman, who was unable to be present, presented the report of the Committee on Medical Education, as follows:

NEW ORLEANS May 10, 1908.

To the Officers and Members, Louisiana Medical Society:

GENTLEMEN: Your Committee on Medical Education begs to report as follows: In our last report your attention was called to an effort being then made to organize a new medical college in this State, and the action of your committee in the matter. We must report that to the present no further effort has been made to establish this school, consequently we have our usual two schools to report on.

The Flint Medical College, colored, and the Medical Department of Tulane, both domiciled in New Orleans.

For the session of 1907-08 Flint matriculated 35 and graduated 9. Its course comprised 30 weeks averaging 29.54 hours per week. Its Dean assured us that the next session would be 30 weeks, and would average 30 or more hours per week.

While we are impressed with the earnestness of its Dean to train his students thoroughly, we have been equally impressed with the inadequacy of the laboratory equipment and the clinical material of this school.

With the Medical Department of Tulane all of you are familiar. It is well equipped with laboratories and will be better equipped for the session of 1908-09. The new laboratories on Tulane Campus, where the first and second year men will receive instructions, are being pushed to completion. Ample clinical material is furnished by the Charity Hospital, with its Milliken Memorial for children and the outdoor clinics. The clinical teaching of gynecology and surgery will be much facilitated by the Delgado Memorial, now being erected on the hospital grounds. The teach-

ing staff now numbers 63. For 1907-08 it matriculated 553. As the session is not yet closed, we cannot furnish you the number of graduates for this session. Its work for 1907-08 comprised a period of 29 weeks (including examinations). Its hours of work show a substantial increase over last year. The session of 1908-09 will cover 32 weeks, with 9 holidays, the first time in the history of the institution that the 30 weeks have been crossed. The entrance requirements will be based on a full four years high school course.

We are pleased to report that all bars to the recognition of Tulane graduates of the future by the "Board of Regents" of New York State have been removed.

In regard to higher entrance requirements for the future, we extract the following from the *Journal A. M. A.*, July 6, 1907: "The Medical Department of Tulane decided May 29, 1907, that not later than January 1, 1910, the entrance educational requirement will be a four years' high school education, or its equivalent, such high school course to be based on eight years in the elementary grades, plus one year to be devoted to physics, chemistry, biology and one modern language. Such action as this taken by Tulane University, as well as by the University of Texas, is the more commendable when one considers the educational conditions in the South, and it is an evidence that the Southern schools are going to take an active part in the movement for higher standards in the medical schools."

The study of the results of examinations of the graduates of these two schools is very interesting. Graduates examined by all State boards during the year 1906 (1907 figures are not yet obtainable):

	Graduates.	Boards.	Failures.
Flint	24	3	54.2%
Tulane	115	16	5.2%

The successes of Flint were recorded in Arkansas, Louisiana and Mississippi. The failures were 6 out of 15 before the Louisiana board and 7 out of 8 in Mississippi.

Tulane's successes were in Alabama, Arizona, Arkansas, California, Connecticut, Florida, Georgia, Idaho, Oregon, Louisiana, Mississippi, North Dakota, Oklahoma, Tennessee, Texas and Wash-

ington. The failures were 1 out of 11 in Alabama, 4 out of 9 in Mississippi, 1 out of 3 in Oregon.

Graduates of 1901 to 1906 inclusive examined in 1906:

	Graduates.	Boards.	Failures.
Flint	24	3	54.2%
Tulane	108	14	3.7%

Flint's successes and failures were as above stated.

Tulane was successful in Alabama, Arizona, Arkansas, Connecticut, Florida, Georgia, Idaho, Louisiana, Mississippi, Oklahoma, Oregon, Tennessee, Texas and Washington. The failures were 1 out of 10 in Alabama, 3 out of 8 in Mississippi.

Graduates previous to 1900 examined in 1906:

	Graduates.	Boards.	Failures.
Flint	0	0	0
Tulane	7	7	28.6%

Tulane was successful in Alabama, Arkansas, California, Florida, Louisiana and North Dakota. The failures were 1 out of 1 in Mississippi and 1 out of 1 in Oregon.

The publication of these results were begun in 1904 and we are now beginning to get statistics that are valuable. The grand total of all graduates of all years of these two schools before all boards from 1903 to 1906, inclusive, are as follows:

Flint	61	62.3% failures
Tulane	372	5.9% failures

We are more firmly of the conviction expressed in previous reports that the best practical good to medical education would be obtained by publishing the marks received in each branch or subject examined. Then the strong and weak features of the schools, as well as of the examining boards, would be strongly contrasted.

In studying the results of the work of the various boards throughout the country, of all candidates examined in 1900, we find a total of 8,035, with 20.7% failures. Now, let us investigate further, taking the three boards with the highest percentage of failures, and three with the lowest percentage of failures, and we find:

	Graduates.	Failures.
Montana	49	51 %
Mississippi	300	48 %
Oregon	121	46.03 %
Michigan	168	3.6 %
Georgia	169	2.9 %
Nevada	2	....
Louisiana .....	...	9.5 %

All the more are we convinced that the publication of the marks on each branch is the more correct method to follow, for if a given school is being depreciated in certain branches, before all boards, look to the school to remedy the deficiency; on the other hand, if all schools were being depreciated, on a branch or branches, before a given State Board, look to that board for the reason.

We are constrained to report the retirement of Professor Stanford E. Chaillé from Medical educational work this year, after having faithfully worked for half a century. All present have felt the beneficent influence of his master-mind. Under his fostering care the college advanced from a school of two-year course of twenty weeks per session, to a four-years graded course of over thirty weeks per session. We have seen the meager equipment, when he took charge as Dean, grow into fully equipped laboratories, and in the face of increased cost of tuition, lengthening of the course, and of the term, the number of matriculants more than doubled. All of the radical and gigantic changes he made, without jarring the machinery of the Medical Department, that department which has so immensely contributed to the prestige of the University.

May Providence long spare his executive mind to guide and counsel those who have lifted the cares of his declining years.

Respectfully submitted,

JOHN CALLAN, M. D., Chairman.

ISAAC IVAN LEMANN, M. D.

S. W. STAFFORD, M. D.

The report was referred to the Council.

DR. J. T. HALSEY, Chairman, submitted the report of the Committee on Revision of the Program, through the Secretary:

REPORT OF COMMITTEE ON REVISION OF PROGRAM.

The committee appointed by the outgoing President of the Louisiana State Medical Society to consider the best arrangements for the conduct of the annual meeting of the society makes the following report and wishes to call your attention, firstly, to the considerations which have led them to offer these suggestions; and, secondly, to the plan recommended.

Judging from the experience of the last two or three meetings it is probable that for the next meeting sixty or more titles of papers will be handed in by various members of the society. In a meeting of three days' duration, and one, where the evening sessions are devoted to special programs, such as the President's Address, Annual Oration, papers by invited guests, and entertainment, the total time available for transaction of business and reading and discussion of scientific papers, is only twenty-one hours, even though the afternoon sessions be prolonged until 6 o'clock. Of this time business meetings absorb from five to six hours, leaving only fifteen or sixteen hours for the scientific program.

With a program of about sixty papers, this means only fifteen minutes for the reading and discussion of each paper. The committee has considered the advisability of recommending the division of the society into one or more sections and the simultaneous holding of separate meetings of such sections, but does not believe that the society would favor so radical a change at this time. It would, however, request the members of the society to discuss such division the last day of this meeting.

RECOMMENDATIONS.

1. Using the number of papers on last year's program as a basis of calculation, the committee recommends the allotment to each section of a fixed period of time for the reading and discussion of the papers belonging therein.

2. That the papers in each section shall be read in order in which the titles are sent to the Committee on Scientific Work, except that, as in the past, the chairman's paper shall be read first, and that, when several papers of closely related import are announced, they shall be grouped together on the program in order that they may all be discussed together.

3. That the time allowed for the reading of a paper shall not exceed ten minutes, and that in discussion, speakers be limited to three minutes.

4. Readers of papers are urged to prepare abstracts of their complete papers for reading at the meeting, handing in the complete papers for publication.

5. If, in any section, the number of papers be so great as to prevent all being read, the papers not read may be read by title or else go to the foot of the program to be read at any later time not otherwise occupied.

Your attention is especially directed to Recommendation 3, limiting the time for reading of a paper to ten minutes; to No. 4, urging the preparation of abstracts for reading, and to No. 2, dealing with the order in which papers will be read.

(Original Signed) J. T. HALSEY, Chairman.

C. JEFF MILLER.

P. L. THIBAUT.

E. O. TRAHAN.

F. H. WATSON.

The reading of the report of the Committee on Cancer of the Uterus was deferred, owing to the absence of Dr. Michinard, from whom a telegram was read by the Secretary, stating that the report was on the way.

The report of the Committee on Conference with Bar Association, relative to Expert Testimony, was deferred on the statement of Dr. Graner, that additional data was expected.

On motion of Dr. Ledbetter, the motion by which the report of the Committee on Public Policy and Legislation was deferred, was reconsidered. Thereupon, on motion of Dr. Ledbetter, Dr. Chassaignac read the report of that Committee.

Dr. Thornhill suggested that the reports of the Chairman of the Board of Medical Examiners, and the report of the Secretary of the Board be read in connection with Dr. Chassaignac's report. On motion of Dr. Graner, it was so ordered.

The morning session then adjourned.

AFTERNOON SESSION.

The afternoon session was called to order at 2:30 by PRESIDENT DOWLING.

DR. IRION read a paper on "The Economic Relation of the Physician to the Sanitary Interests of the State."

DR. S. C. BARROW read a paper entitled "Some Therapeutic Uses of the X-Ray." Discussed by DRs. GRANGER, GRANER, and BOOTH.

DR. JOHN J. ARCHINARD read a paper entitled "The Bacteriological Diagnosis of Diphtheria." Discussed by DRs. DUPUY, HUME and McSHANE.

DR. C. C. BASS read a paper entitled "Simple Macroscopic Typhoid Agglutination Test." Discussed by DRs. ARCHINARD, WEIS and MARTIN.

DR. WEIS read a paper entitled "The Spirochaete Pallida." Discussed by DR. BASS.

DR. JOSEPH HUME read a paper on "The Gonococcus." Discussed by DR. WEIS.

DR. BALLOWE read a paper entitled "Shall the Average Country Practitioner Testify Before Our Juries as an Expert?" Discussed by DRs. HUMMEL, PIERSON and LAZARD.

DR. GORDON KING read a paper entitled "Further Observations on the Nasal Treatment of Spasmodic Asthma."

The afternoon session then adjourned.

EVENING SESSION.

DR. E. M. HUMMEL read a paper on "The Pathology and Symptoms of Multiple Sclerosis."

DR. J. G. MARTIN read a paper entitled "The Anatomy and Physiology of the Para-Thyroid Gland."

DR. E. A. ROBIN read a paper entitled "The Uses of Dionin in Diseases of the Eye." Discussed by DR. SALTER.

DR. R. W. SALTER read a paper on "Trachoma." Discussed by DR. ROBIN.

DR. I. J. NEWTON read a paper entitled "Practical Points in the Diagnosis and Treatment of Skin Diseases."

DR. S. M. D. CLARK read a paper entitled "Ectopic Gestation, with Special Reference to the Propriety of Deferring Operation in Special Cases." Discussed by DRs. E. D. MARTIN, CHAVIGNY, GELBKE, BARRIER and GREMILLION.

DR. E. D. MARTIN read a paper entitled "Operative Treatment of Vesico-Vaginal Fistula." Discussed by DRs. CHAVIGNY and CLARK.

The evening session then adjourned.

WEDNESDAY, MAY 13, 1908.

MORNING SESSION.

The meeting was called to order at 9:30 by PRESIDENT DOWLING. The minutes of the first day's proceedings were read and approved. The scientific program was then taken up.

DR. R. H. BLACKMAN read a paper on "Etiology" (of Nephritis), being one of the papers included in the "Symposium on Acute Nephritis in Children."

On motion of DR. HALSEY it was ordered that the discussion be deferred until after the papers on Nephritis in the section on General Medicine had been read.

DR. WEIS read a paper on "Pathology of Nephritis."

DR. J. T. HALSEY read a paper entitled "The Physiology and Pharmacology of Nephritis."

DR. FRANK WATSON read a paper entitled "Arterio-Sclerosis and Nephritis."

DR. J. B. ELLIOTT, JR., read a paper on "Treatment of Nephritis."

DR. R. M. VAN WART read a paper entitled "The Nervous and Mental Symptoms of Nephritis."

The papers on Nephritis were discussed by DRs. LAZARD, ALLEN, EUSTIS, SIMON, McSHANE, and DR. ELLIOTT, JR., in closing.

The Council reported that it did not have a quorum present, and presented various recommendations with request that the Society take action thereon. On motion of the Secretary, DRs. JAMES F. BOOTH, JOHN C. MONEY, D. H. DILLON and JOSEPH LEVY were elected members of the Society, and action upon the other recommendations of the Council was deferred until the third day.

DR. HOMER DUPUY read a paper entitled "Antidiphtheritic Serum Medication in Post Diphtheritic Paralysis." Discussed by DRs. VAN WART and THORNHILL.

DR. J. A. STORCK read a paper on "Chronic Sygmoiditis; Report of Cases."

DR. SIDNEY K. SIMON read a paper entitled "Amebic Dysentery and its prevalence in Louisiana." Discussed by DRs. BASS, CHAS-
SAIGNAC, GUTHRIE and EUSTIS.

Upon motion of DR. EUSTIS the unfinished portion of the morning's program was laid over to be taken up in the evening after the addresses of the President and Orator.

A recess of five minutes was taken to permit the members of the various districts to meet and elect members of the Nominating Committee.

AFTERNOON SESSION.

The meeting was called to order by PRESIDENT DOWLING at 3:15.

DR. J. L. WILSON read a paper entitled "The Importance of Surgical Intervention in Intestinal Lesions of Typhoid Fever." Discussed by DR. E. D. MARTIN.

DR. J. B. HARGROVE read a paper entitled "Carcinoma of the Liver; Operation; No Return."

DR. H. B. GESSNER read a paper entitled "Report of a Case of Jacksonian Epilepsy; Operation; Removal of Bone Spiculum from Fissure of Rolando." Discussed by DRs. MCSHANE, HUMMEL, PARHAM, VAN WART, MARTIN, ALLEN, HALSEY and W. M. PERKINS.

DR. C. J. GREMILLION read a paper entitled "Diagnosis and Treatment of Intussusception; Report of Two Cases." Discussed by DRs. OECHSNER, F. V. GREMILLION and ALLEN.

DR. CARROLL W. ALLEN read a paper entitled "The Volkman Step Operation in Ununited Fracture of the Leg and Vicious Union."

DR. EDWARD S. HATCH read a paper on "Flat Foot."

DR. F. A. LARUE read a paper on "Cuneiform Resection of Knee for Ankylosis." Discussed by DR. THIBAUT.

DR. F. W. PARHAM read a paper entitled "The Importance of the Examination of the Urine for Tubercle Bacilli, with Presentation of a Specimen of Tuberculous Ureter Showing Calculi in Situ."

DR. F. W. PARHAM also read a paper entitled "The Uses of the Pezzer Umbrella Catheter in Surgery." Discussed by DR. E. D. MARTIN.

DR. JOHN F. OECHSNER read a paper entitled "Some Interesting and Instructive Bone and Joint Cases." Discussed by DRs. PERKINS and EUSTIS.

DR. LAZARO made a motion that a House of Delegates be es-

tablished by the Society which should attend to the business of the Society, leaving the general meetings for scientific work.

Being a proposed amendment to the by-laws, the motion was laid over under the 24-hour rule until Thursday.

The meeting then adjourned.

EVENING SESSION.

PRESIDENT DOWLING delivered the Annual Address.

The Annual Oration was delivered by HON. ROBERT A. HUNTER.

Upon motion of DR. LARUE a vote of thanks was extended to the HON. ROBERT A. HUNTER, and he was elected an honorary member of the Society.

DR. LAZARO read paper on "Tuberculosis Sanitariums."

The meeting then adjourned.

ST. TAMMANY PARISH MEDICAL SOCIETY.—The St. Tammany Parish Medical Society met and re-organized July 22, 1908. Following officers were elected: Dr. G. R. Tolson, President; Dr. R. B. Paine, Vice-President; Dr. J. F. Pigott, Secretary; Dr. P. R. Outlaw, Treasurer. The membership numbers 17. Dr. E. Denegre Martin, President of the Louisiana State Medical Society, was present and assisted in the re-organization.

(To be Continued.)

Medical News Items.

THE KENTUCKY ANTITUBERCULOSIS ASSOCIATION has appropriated \$2,500 to buy ten cows for its local sanitarium.

THE LATE DR. R. DOUGLAS of Nashville, Tenn., left his library to the physicians of that city.

AT THE CELEBRATION OF THE TWO HUNDRED AND TWENTY-FIFTH ANNIVERSARY OF THE FOUNDING OF PHILADELPHIA, to be held October 4-10, a medical day will be observed and a fine program has been prepared.

THE BRITISH GOVERNMENT has appointed delegates from England, Scotland, and Ireland to the International Congress of Tuberculosis to be held in Washington next month.

A TUBERCULOSIS EXHIBIT will be made at the Home Manufacturers Exhibit to be held in this city in September.

THE MISSISSIPPI MEDICAL COLLEGE has made all necessary arrangements to admit female students on the same basis as males.

THE DEMOCRATIC PLATFORM contains the following strong plank: "We advocate the organization of all existing national public health agencies into a national bureau of public health with such power over sanitary conditions connected with factories, mines, tenements, child labor and other such subjects as are properly within the jurisdiction of the federal government and do not interfere with the power of the State's controlling public health agencies." The Republicans are less definite, but make an analogous statement in their platform.

IN THE PASTEUR CLINIC at the Charity Hospital during July 89 persons applied for treatment and 39 were received.

FOR THE WEEK ending August 1st, the death rate per 1,000 per annum white, was 10.48 in New Orleans.

DURING THE MONTH OF JULY more accident cases were treated in the Charity Hospital than at any time since the founding of that institution.

THE PAN-AMERICAN MEDICAL CONGRESS closed a successful meeting in Guatemala City August 14th. The next congress will be held in Lima, Peru, in August, 1911.

DR. E. D. MARTIN, President of the Louisiana State Medical Society, made an address before the St. Tammany Parish doctors. At this meeting the parish society was reorganized with Dr. Geo. R. Tolson President. Every physician in the parish is expected to join the association. Monthly meetings will be held on the first Wednesday of each month and special attention will be given sanitary measures.

THERE HAVE BEEN TWELVE MERGERS of medical colleges in the United States during the past two years. Twenty-six institutions have united their forces to form ten larger and stronger ones.

DR. W. J. DUREL has changed the name of his sanitarium, which is now known as the Covington Tuberculosis Sanitarium.

THE NEXT MEETING of the State Board Medical Examiners will be held in this city October 1-2, at the Medical College, Canal and Villere streets.

DR. GEORGE A. PALMER, the managing editor of the *Chicago Clinic and Pure Water Journal*, has commenced the publication in his journal of a series of illustrated articles pertaining to "Surgical Things out of the Ordinary." These articles are on "The Doctors of Fiction" and "The Bookplates of American Physicians." The initial article refers mainly to the doctor described by Fielding in "Tom Jones."

PERSONALS.—Dr. Gustav Mann, recently elected to the chair of Physiology in the Undergraduate Medical Department of the Tulane University, has arrived in the city.

Dr. Geo. Dock, of the University of Michigan, has accepted the chair of Theory and Practice of Medicine in the Undergraduate Medical Department of Tulane University.

Dr. Parham and family spent the past month in Fletcher, North Carolina.

Dr. Isadore Dyer and family spent the past month at Atlantic City.

Dr. and Mrs. G. F. Cocker enjoyed a months' outing in Canada.

Dr. Irion, President of the State Board of Health, made an address at Mineral Wells, Texas, on Municipal Sanitation.

Dr. and Mrs. S. M. D. Clark sailed for Europe in August.

Dr. A. J. Storck and Dr. E. M. Hummel spent the month of August in Boston.

Among the doctors visiting in New Orleans the past month were: Dr. V. A. Miller, Lake Arthur; Dr. Chas. McVea, Baton Rouge; Dr. S. Thedford, Jackson, La.; Dr. P. Bechet, Natchitoches, La.; Dr. C. E. Fisher, Chicago, Ill.

Dr. Andw. G. Friedrichs and Dr. L. D. Archinard have returned from Boston, where they attended the Association of Dental Faculties and the National Dental Association. Dr. Friedrichs was elected on the Executive Committee for two years, and was elected

its secretary. Dr. Archinard was Vice-Chairman of a section of the National Dental Association.

Dr. Gordon King attended the Pan-American Medical Congress in Guatemala City.

Among the doctors who passed through the city to attend the Pan-American Medical Congress were: Dr. Gregorio M. Guiteras, United States Public Health and Marine Hospital Service; Dr. Samuel Sherwell, of Brooklyn; Dr. R. Winslow, of Baltimore; Dr. Garcia Leeos, of New York; Dr. W. F. Shuttles, of Dallas.

REMOVALS.—Dr. J. M. Lemons has moved from Bon Ami, La., to Sulphur Springs, Ark.

Dr. I. M. George from Jonesboro, La., to El Dorado, Ark.

Dr. R. P. Jeffries from Jonesboro to Roff, Okla.

Dr. B. L. Bailey from Poland to New Verda, La.

Dr. Otto Braun from Kaplan to Perdue, La.

Dr. C. B. Harrington from Ludington to Eudora, Ark.

MARRIED.—On August 13th, Dr. R. A. Duncan, of Snyder, Texas, to Miss Brownie Outland, at the residence of the bride in this city.

Dr. T. P. Lloyd and Miss Elsie Jacobs, both of Shreveport, were married in that city on August 18.

DIED.—On Monday, August 17, 1908, at 2 p. m., Dr. Ernest A. White, aged thirty-five years, in this city.

Book Reviews and Notices.

Why Worry. By GEORGE LINCOLN WALTON, M. D. J. B. Lippincott & Co., Philadelphia and London.

The philosophy of autosuggestion applied to the individual and to the community is here presented with keen reasoning and with delicious aptitude. The antitheses of doubt and hope, of obsession and elation are drawn in strong lines with the idea of impressing the reader, lay or medical, with the fixed belief that worry in all its phases is a chimera. Originating in a group of lectures delivered by the author, this little book must serve a wider and greater purpose as it becomes proportionately known.

DYER.

The Medical and Surgical Knowledge of William Shakespeare. By JOHN W. WAINWRIGHT, M. D. Published by the Author.

Occasional references have here and there been made to Shakespeare's multifarious knowledge and attainments. Of the several compilations of his medical knowledge, this one is the most pretentious. The JOURNAL acknowledges a decided pleasure in reviewing a copy of the author's edition gotten up in dainty form and printed appropriately on old Stafford paper.

The Shakespearian quotations, aphorisms and selections are presented with systematic scheme and are made more interesting and attractive by the interpolation of epigrammatic analyses from the pen of the author and compiler of the book. That Shakespeare was no mean student of the science and art of medicine and surgery is evident from the grouping of the selections made, in which the seven elemental branches of medicine are each covered, and, in addition, both medical ethics and jurisprudence are touched upon. The superb philosophy of the universal bard is everywhere exemplified.

"* * * But I consider,
By medicine life may be prolonged, yet death
Will seize the doctor, too."

DYER.

Pathology, General and Special. For Students of Medicine. By R. TANNER HEWLETT, M.D., F.P.C.P., D.P.H. Second edition. Philadelphia: P. Blakiston's Son & Co., 1907.

This excellent manual has already justified its existence. It gives a concise, but not truncated, presentation of all the subjects in the domain of pathology that are necessary to the formation of a clear picture of what is amiss in the human economy, without which rational or intelligent treatment is impossible. The book is a well-balanced condensation for the use of students. Where there is so much that is good, we may be pardoned for calling attention to the fact that in yellow fever the jaundice is hematogenous rather than hepatogenous; and that, while the authorities (under "immunity") that "native races in many parts of the world are comparatively insusceptible to yellow * * * fever," the fact seems to be that this special immunity is only apparent, for in regions where yellow fever is endemic, every infant has it as soon as he is old enough to furnish food to the *Stegomyia*. In infancy, however, the disease is so mild that it passes unobserved, but it confers immunity ever after. Under Bright's disease, no reference is made to an alteration of the serum-albumin. No doubt these changes will be incorporated in future editions.

McSHANE.

Lectures on Medical Jurisprudence and Toxicology, as Delivered at the London Hospital. By FRED J. SMITH, M. D., M. D. (Oxon.), F. R. V. P. (Lond.), F. R. C. S. (Eng.), Second Edition, P. Blakiston's Son & Co., Philadelphia (J. A. Churchill, London).

As a guide to the witness, medical or other, in medicolegal cases, this book is excellent, as it is a practical presentation of the subject, based upon a series of lectures constantly revised by the author. While the legal side of the subject is largely written under the influence of English custom and law, the applications are altogether adaptable to the conditions in this country. The chapters on anesthetics, death certification, and examination of the person alive and dead are new in this edition.

DYER.

The Theory and Practice of Hygiene. (NOTTER and FIRTH.) Revised and Largely Rewritten by R. H. FIRTH, Lieut. Colonel in the Royal Army Medical Corps, etc. Third Edition. P. Blakiston's Son & Co., Philadelphia.

The growing importance of hygiene and preventive medicine makes every text on these subjects of value according as its merits meet modern conditions. The book in review has reached a deserved recognition in a third edition and the subject matter is worthily presented.

As in many texts originating in Great Britain, the text is colored by the practise, law and custom prevailing there, but even in this nothing is lost to the American reader as much of the prevailing law is derived from the English, although custom and practise in sanitary matters have been materially changed and in some particulars advanced in this country.

The scientific training of the author is manifest in the text and exhaustive mathematical deductions are applied wherever these relate to explanations in the book. Altogether making nearly 1,000 pages, every phase of hygiene is entertained, including a most excellent chapter on parasites and on military hygiene. As a reference work this book must fill a constant place.

DYER.

Outlines of Physiology. By EDWARD GROVES JONES, A. B., M. D., and ROBERT GRIER STEPHENS, A. B., M. D. Second Edition. P. Blakiston's Son & Co., Philadelphia.

This little book fulfils the purpose of its title and in a clear and practical style presents the subject of physiology in outline. Beginning with a graphic study of the unit cell, each division of the body tissues is discussed in turn and no attempt is made to develop an exhaustive treatise. As a handbook this text has a useful field.

DYER.

Personal Hygiene in Tropical and Semi-Tropical Countries. By ISAAC WILLIAMS BREWER, M. D. F. A. Davis Co., Philadelphia.

An excellent vade mecum for the intending traveler in the tropics. Not only is good general advice given, but the author writes in detail of the precautions against particular diseases prevalent in hot countries.

DYER.

Publications Received.

P. BLAKISTON'S SON & CO., Philadelphia, 1908.

Diagnosis by the Urine, by ALLARD MEMMINGER, M. D.

F. A. DAVIS CO., Philadelphia, 1908.

Diseases of Infancy and Childhood, by LOUIS FISCHER, M. D. (2nd Edition.)

WILLIAM WOOD & CO., New York, 1908.

The Natural History of Cancer, by W. ROGER WILLIAMS, M. D.

MISCELLANEOUS.

Surgery, by JOHN ALLAN WYETH, M. D., LL. D. (Marion Sims Wyeth & Co., Publishers, New York City, 1908.)

The Newer Remedies, by VIRGIL COBLENTZ, A. M., Phar. M., Ph. D., F. C. S. 4th Edition. (The Apothecary Publishing Co., Boston, Mass., 1908.)

U. S. Department of Agriculture—Bureau of Chemistry—Bulletin No. 84. Part IV. H. W. WILEY, Chief of Bureau. "Influence of Food Preservatives and Artificial Colors on Digestion and Health." IV. "Benzoic Acid and Benzoates." (Government Printing Office, Washington, D. C., 1908.)

The 18th Annual Report of the Eye, Ear, Nose and Throat Hospital of New Orleans, La., of 1907.

Reprints.

Oxygen in Medicine and Surgery: A Contribution, With Report of Cases, by DR. WM. SEAMAN BAINBRIDGE.

The Hydriatic Method in the Treatment of Cardiac Disease, by DR. J. H. KELLOGG.

The Influence of Flesh-Eating on Endurance, by DR. IRVING FISHER.

The Influence of Alcohol on the Opsonic Power of the Blood, by DR. CHAS. E. STEWART.

The Submucous Operation on the Nasal Septum, With a Plea for a More Rapid Technic, by DR. J. E. MACKENTY.

The Value of an Absolutely Vegetarian Diet in Psoriasis, by DR. L. DUNCAN BULKLEY.

A Case of Diphtheria in Which 498,000 Units of Antitoxine Were Given, by DR. W. K. SUTHERLIN.

The Operation for Thrombus of the Sigmoid Sinus and Internal Jugular Vein of Otitic Origin, by DR. FRANK ALLPORT.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
FOR AUGUST, 1908.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	8	1	9
Intermittent Fever (Malarial Cachexia)	7	4	11
Smallpox.....			
Measles		1	1
Scarlet Fever.....	3		3
Whooping Cough.....	4	3	7
Diphtheria and Croup.....	3	1	4
Influenza			
Cholera Nostras.....			
Pyemia and Septicemia	2		2
Tuberculosis.....	31	38	69
Cancer.....	11	5	16
Rheumatism and Gout	1		1
Diabetes		1	1
Alcoholism	4		4
Encephalitis and Meningitis.....	9		9
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	6	5	11
Paralysis			
Convulsions of Infants	4	2	6
Other Diseases of Infancy	12	5	17
Tetanus.....	2	4	6
Other Nervous Diseases	1		1
Heart Diseases.....	26	22	48
Bronchitis	2	1	3
Pneumonia and Broncho-Pneumonia.....	4	10	14
Other Respiratory Diseases.....		3	3
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach	2	4	6
Diarrhea, Dysentery and Enteritis.....	30	20	50
Hernia, Intestinal Obstruction.....	1		1
Cirrhosis of Liver.....	7		7
Other Diseases of the Liver	5	3	8
Simple Peritonitis			
Appendicitis.....	3	1	4
Bright's Disease	25	16	41
Other Genito-Urinary Diseases.....	2	2	4
Puerperal Diseases	4	4	8
Senile Debility.....	14	7	21
Suicide	6	2	8
Injuries.....	28	14	42
All Other Causes.....	24	16	40
TOTAL.....	293	195	488

Still-born Children—White, 29; colored, 24; total, 53.

Population of City (estimated)—White, 258,000; colored, 93,000:
total, 351,000.

Death Rate per 1000 per annum for Month—White, 13.63; colored,
24.09; total, 16.68.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.02
Mean temperature 81
Total precipitation 11.03 inches.
Prevailing direction of wind, southeast.

New Orleans Medical and Surgical Journal.

VOL. LXI.

OCTOBER, 1908.

No. 4

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a **WRITTEN** order for the same accompany the paper.)

Notes on Intestinal Myiasis.

By WILLIAM H. DEADERICK, M. D.,

Member American Society of Tropical Medicine;

Membre Correspondant Société de Pathologie Exotique (Paris),

Marianna, Arkansas.

In 1902 Schlesinger¹ was able to find in the literature some one hundred cases of intestinal myiasis. Since then a number of such cases have been recorded.

It is not then the extreme rarity of these cases that leads to the writing of this paper, but a desire to emphasize the importance of determining with certainty the source of maggots claimed to have been passed from the bowel. Mistakes in this regard certainly occur, and either way may be productive of harm. These mistakes are usually due to a lack of knowledge of the life history of the diptera. Among the species of this order of insects whose larvæ occur in man as pseudo-parasites, there are two modes of reproduction, the oviparous and the viviparous. The former is

the more frequent among the species in question, but the latter is usual among the Sarcophagids especially. In the oviparous diptera the egg stage is usually only a few hours, commonly eight.

The following are the most common species giving rise to intestinal myiasis in this climate:

Musca domestica, the common house fly, deposits its eggs on horse manure, occasionally on that of the cow or even in human feces, rarely on decaying animal or vegetable matter.

Musca vomitoria, the blue bottle meat fly, deposits its ova by preference upon decaying animal matter.

Anthomyia canicularis, the little house fly, deposits its ova upon decaying vegetable matter.

Sarcophaga carnaria, the green flesh fly, larvæ placed on decomposing animal matter, possibly also upon human feces.

Piophilæ casei, the cheese fly, deposits its ova upon cheese or upon human feces.

The physician who is known to be interested in intestinal parasites will be confronted with numerous specimens, some of which he may promptly pronounce humbugs, intentional or otherwise.

For the positive diagnosis of intestinal myiasis there are two points necessary to be determined: first, that the larvæ appear in the feces when the latter are passed; secondly, that the possibility of access of larviparous flies be rigidly excluded.

In this connection the following case, occurring under my observation, is apposite:

Mrs. W., white, female, aged 31, of a very nervous temperament, says that she has at intervals during the summer and fall for 15 years, passed small worms which have been noticed in greater quantities for the past three or four years. These worms are said to hatch out in crops about every three weeks, at which times her complexion becomes dark and she is troubled with uneasy sensations in the abdomen. There is tenderness over the ovary during menstruation, the patient is easily and frequently nauseated and passes quantities of urine at frequent intervals. Her husband, who is a physician, states that he has sent specimens of these worms to two pathologists who identified them as pin worms. He says that the treatment has consisted of the persistent use of almost every known anthelmintic. The patient is anemic in appearance and very much discouraged about her condition. The

examination of the blood and feces is negative. While both the patient and her husband persist that the parasites are passed from the bowel, questioning reveals the fact that the worms do not appear in the feces until from three to five days after passage, but that they appear even if passed into a clean chamber and protected (?) from access of flies.

Some of the specimens were sent by me to Dr. Stiles and to the Bureau of Entomology, who identified them as larvæ of *musca domestica*, the common house fly.

In this case the nervousness and despondency of the patient were undoubtedly aggravated, if not produced, by the mistaken but sincere idea that she was infested with loathsome parasites for which there was no cure.

In temperate climates cases of intestinal myiasis are seen during the summer and fall.

The larvæ may gain entrance to the body either as ova or as larvæ. Probably the most common mode of infection is through eating food containing ova or larvæ, though the anus may be the port of entry. Wirsing² believes that infection occurred through the anus in the case of a breast nursing infant taking an air bath in an open window. In the case reported by Finlayson,³ due to *anthomyia canicularis*, it appears that the ova were not swallowed but were deposited at the anus while the patient was defecating and were taken up within the bowel after defecation.

A strange but apparently well authenticated case is the classic one of Pickells, related by Joy⁴ as follows:

The person in whom it occurred was a young woman of a chlorotic habit and melancholy disposition, who, from certain superstitious notions, had been in the habit of drinking daily a mixture of water with the clay taken from the grave of two priests who had maintained during life a high character for sanctity by which practice she, in all probability, acquired the ova of those insects which continued to be developed at intervals for some years afterwards. It is also mentioned that on one occasion she lay out the entire duration of a rainy winter night, stretched across the grave of her mother; and moreover, that she was addicted to eating chalk in incredibly large quantities. Of the larvæ of the beetle evacuated per anum prior to the publication of his first paper, Dr. Pickells estimated the number at above one hundred, and supposed

that above seven times that quantity had been vomited; and in the next year and a half, the period comprised in his second account terminating with June, 1825, above thirteen hundred beetle larvæ, all of which he himself reckoned, had been discharged. Thus the whole number during about three years and a quarter amounted to above two thousand, and most of these were alive. Both the larvæ, pupæ and perfect insects were simultaneously observed. Many made their escape the moment they were vomited and ran off into holes in the floor, and two large winged insects were so lively on their expulsion that they immediately flew away and escaped. Besides these coleopterous larvæ, there were the larvæ of two kinds of fly, one of which seems to have been the *musca vomitoria*, or blue bottle fly.

The symptoms common to this disorder are abdominal pains, nausea and diarrhea, or dysentery, though migrain, neuralgia hysterical symptoms and even epilepsy have been recorded.

The treatment, which is nearly always successful, is castor oil, alone, or given with santonin. The oil should be given on an empty stomach, in one dose, for three successive days.

The following case, which has recently occurred in my practice, is, I believe, genuine:

H. W., white, male, aged 42, married, a native of Tennessee, has been in this section of Arkansas for 16 years. He lives in the St. Francis River bottom, is a timber man, and his meals are served and cooked in an unscreened tent. His father died of some acute stomach trouble; his mother of pneumonia. W. had pneumonia seventeen years ago, and has chills nearly every year. On June 29, 1908, he came to me with a typical chancre on the glans, for which I prescribed the proto-iodide of mercury. On July 5 he sent for some medicine for chills from which he was then suffering, and for which he received quinin. This broke the chills promptly, so that he discontinued the treatment, and consequently had a recurrence about eight days later when he resumed the quinine. On July 17 he came to the office. The temperature and pulse were normal, the spleen extended three inches beyond the costal arch and the patient looked anemic. The examination of the blood was negative for malarial parasites. The differential leucocyte count was: small mononuclears 5.7 per cent; large mononuclears 27 per cent; polymorphonuclears 62 per cent;

eosinophiles 4.3 per cent and basophiles 1 per cent. At this visit he informed me that the bowel movements of the last few days contained minute worms in great numbers. He was troubled with these same worms for a few days about the same time last year. He promised to send some of the worms to me, which I received July 18. Believing them to be dipterous larvæ, I sent some of them to Dr. Howard, of the Bureau of Entomology, who wrote me that as the larvæ were in the second stage only a specific determination could not be made, but they seemed to be either *chrysomyia* or *sarcophaga*, probably the former.

W., who is an intelligent man, is sure that the larvæ came from the bowel, as they can be seen even before the act of defecation is completed and are thoroughly mixed with the fecal matter. A few doses of castor oil, especially the first dose, removed a number of these larvæ, since when he has seen no others.

REFERENCES.

1. Schlesinger, Wiener *Klinische Wochenschrift*, Jan- 2, 1902.
2. Wirsing, *Zeitschrift für Klinische Medizin*, 1x, 1-2.
3. Finlayson, *Glasgow Medical Journal*, Mar. 1889.
4. Joy, *Cyclopedia of Practical Medicine*, vol. iv, Phila, 1854.

Moral Aspect of Race Suicide and Criminal Abortion*

By REV. ALBERT BIEVER, S. J., New Orleans.

It is with unfeigned appreciation that I have accepted the invitation to address this body of eminent physicians, who reverence the sacredness of human life and recognize the higher and nobler law on the eternal principles of which all sound medical jurisprudence must repose.

Next to the supernatural vocation to the sacred ministry, I esteem no profession more highly than that of the physician. He is indeed held in deeper veneration than the members of any other profession. "Honor the physician," says Holy Writ, "for the need thou hast of him; for the most High has created him."

Personal integrity and conscientious regard for the higher law of morality are more necessary for the doctor than for any other professional man. His conduct is less open to observation than that of men of other professions. The lawyer may have temptations to act unjustly, but other lawyers are watching him and the courts

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of justice are at hand to check his evil practices. The public function is ever in the eye of the people and the politician must heed his political opponents. But the physician, on very many occasions can be morally sure that his conduct will never be scrutinized. Such is the nature of his ministrations, such, too, the confidence reposed in his integrity, that he is and must be implicitly trusted in matters in which if he be unworthy of his high vocation, he may be guilty of the most outrageous wrongs. The highest interests of earth are in his hands. Who has more frequent opportunities than a licentious doctor to seduce the innocent, to pander to the passions of the guilty, to play into the hands of greedy heirs? No one can do it more safely as far as human tribunals are concerned.

As a matter of fact there are not a few doctors, who have prostituted their exalted profession to the vilest uses. Much of this is due to the Godless philosophy taught in so many universities, to the so-called scientific theories that deny the existence of a personal God, undermine the most sacred principles of morality and regard man as a mere brute and differing mentally from the ape and the dog but only in degree of perfection. Thus the higher law is ignored and human opinions and human enactments are considered the sole standard of right and wrong. Among the abuses that have degraded the practice of medicine I will mention two as bearing upon the subject under discussion in this scientific symposium.

The first may be placed under the much used term of "*race suicide*" so largely promoted by the Godless practitioner, who teaches the young wife to avoid the pains and trials of maternity, suggests various artifices, protectors, vaginal douches to frustrate nature's sublimest works and often gives the advice he knows will be acceptable, that another child would spell death. The Church calls this sin "*Infandum Crimen*," and has ever held it in abhorrence, even debarring from the sacraments any one who does not recognize and follow the laws of God respecting the sacred and inviolable character of the married state.

"The shattering of the marital state through onanism," says Dr. Max in his book on Pastoral Medicine, "is the principal source of the disaffection of the men of France toward the Church. In the *Compte Rendu* of the year 1884 it is expressly stated that in those departments f. i. in the Bretagne where such immorality is not practiced, religious life is found in full bloom."

"God forbid that I should eulogize Romanism," exclaims a Protestant minister, the Rev. D. Sinclair, in a sermon reported in the *Boston Herald*, Nov. 9, 1891, "but the Roman Catholic is the one church which is a practical foe to this hellborn sin, which has fastened its fangs and death venom in the vital heart of marriage. Before God I believe the many errors of the Romish Church are cancelled by its loyalty to that great law which enforces the truth that the end of marriage must not be profaned. Oh, the punishment will come when least expected and will come in such a way as to wring the very fibres of humanity. It will come in the form of ruined health and undermined constitutions, it will come when the only child permitted to enter into this world is snatched away like a delicate flower whose fragrant life was all too short for joy. It will come when the husband and wife in age sit lonely by the fire-side with no kindred lips to kiss their faded cheeks, no sturdy arms to support their faltering steps, no tender and affectionate hands to close their weary eyes."

The births from lawful wedlock have decreased so alarmingly in certain sections of this country (France) that a sturdy race whose history was writ large in the annals of human progress, seems almost doomed to extinction.

The Ministry of Works in France has just published the following statistics concerning the population of that country. The number of families, with or without children, is 11,315,000. Of these there are:

1,804,710	families that have no children.
2,966,171	" " " 1 child.
2,661,978	" " " 2 children.
1,645,425	" " " 3 children.
978,592	" " " 4 children.
566,768	" " " 5 children.
527,241	" " " 6 children.
182,998	" " " 7 children.
94,729	" " " 8 children.
44,728	" " " 9 children.
20,659	" " " 10 children.
8,305	" " " 11 children.
5,508	" " " 12 children.
1,457	" " " 13 children.

554	"	"	"	14 children.
249	"	"	"	15 children.
79	"	"	"	16 children.
54	"	"	"	17 children.
45	"	"	"	18 or more children.

In the *Delineator* of November, 1907, a magazine devoted to woman's fashion, appeared an article entitled: "*Two Million Homes in the United States Without a Child.*" Out of every 100 homes in the State of Massachusetts, eighteen are without children. More than 100,000 childless homes, so runs the record of the old Mother State, Massachusetts. A century ago, the children numbered one-third of the population. Now they are scarcely one-quarter.

Allied to this crime of prevention or repression is the utter neglect of the rights of the unborn child. When the efforts of frustrating nature's course have failed, the physician is consulted and urged to enter into conspiracy against the fetal life of a human being. Here is another point, gentlemen, that deserves your most serious attention. To clearly understand the uncompromising attitude of Catholic ethics with regard to abortion it is necessary to make a few preliminary remarks. It was long debated among the learned at what period of gestation the human embryo begins to be animated by the rational, spiritual soul which elevates man above all other species of the animate creation and survives the body to live forever.

The keenest minds among the ancient philosophers, such as Aristotle, had conjectured that the future child was endowed at conception with a principle of only vegetable life, which was exchanged after a few days for an animal soul and was not succeeded by a rational soul until later. Aristotle's opinion was adhered to by the scholars of the middle ages. In 1620, Fienus, a celebrated physician of Louvain, Belgium, maintained on good ground that the human soul was infused into the embryo three days after conception. Thirty-eight years later Florentinus, a priest, taught openly that the human soul was the intelligent soul from the moment of conception. The ancient Oriental Fathers, resting their teaching partly on the physiology of Hippocrates and the philosophy of common sense, made shrewder guesses. As early as the fourth century, St. Gregory of Nyssa, and St. Basil the Great, quietly, but intrepidly, championed the principle that the

human embryo is animated by the intellectual soul from the moment of conception. This conjecture modern science has proved to be a fact.

The Catholic Church in the midst of the disputants of past centuries stood calm and uncompromising, ever protecting the nascent life, and the light thrown by modern science upon the subject of human animation has but enhanced her ancient and consistent practice. There exists among the masses an impression that the embryo is perfected at the period of quickening, say the one hundred and twelfth or one hundred and twentieth day, and that at that period it receives its spiritual nature into union with its corporal. You, gentlemen, should strive to remove this mischevicious ignorance which sends so many women to your offices to be relieved of what they call "*their trouble*." Hence in discussing the momentous question of fetal life, both physician and moralist must ever remember that the embryo from the first moment of conception or fecundation is a human being with an immortal soul.

Abortion or miscarriage strictly means the expulsion of the fetus before it is viable. The period of arrival at viability is usually after the twenty-eighth week of gestation. When birth occurs later than that period and yet before the full term of nine months, it is called premature birth, which is altogether different from abortion; for it may save the life of the child, which abortion always destroys. Premature labor is frequently induced in legitimate medical practice for the purpose of avoiding the risks which in some cases attend parturition at full term.

Abortion may occur *spontaneously* or may be artificially induced.

Spontaneous abortions are the result of natural causes beyond human control or may be brought on by unintentional imprudence on the part of the mother or her attendants.

Artificial abortions or *intentional abortions* may be distinguished into two classes: *Criminal abortions* and *obstetrical* or *therapeutical abortions*. By *criminal abortions* I understand those which are *directly* and *artificially* brought about for social purposes.

There has sprung up in our midst a race of Godless men and women who under the panoply of medicine or the captious name of midwifery, for the paltry sum of a few cents imbrue their hands and consciences in the blood of unborn infants. You, gentlemen, call criminal abortion a crime against the individual, a crime against

society, a crime against the unborn babe. It is above all a crime against the Great God, who in awful majesty issued the solemn proclamation: "Thou shalt not kill." The Pagans of old exposed their children and they became the food of the animals that prowled about during the hours of night or were picked up by the scavengers' cart and cast as refuse into the sea, but the Pagans of the present time ruthlessly slay them even in the wombs of their mothers. "We blush while we record the fact that even medical men are to be found," says Dr. Hodge, of Philadelphia, to the medical students of the University of Pennsylvania, "who for some trifling and pecuniary recompense, will poison the fountain of life or forcibly induce labor to the certain destruction of the fetus and not infrequently of the parent." Physicians who thus prostitute their noble calling have not the fear of God in them. It is your duty, gentlemen, to devise some means to bring them to justice and to fill them with the salutary fear of man.

We read in history that the worship of Moloch prevailed among the Carthaginians to such an extent that the Romans failed to suppress it, until finally, making a dread example in true Roman fashion they hung the priests of those bloody rites on the trees of their sacred grove. Gentlemen, I do not like to go on record as an advocate of extreme measures to repress this not uncommon crime, but I believe that a penalty commensurate with the hideousness of the offence ought to exist in the community and be unmercifully inflicted on the culprit whenever and wherever found.

The moral deformity of criminal abortion assumes larger proportions when viewed from the standpoint of a believing Christian. For in his eyes the abortionist is not only guilty of murder and of an unwarranted assault upon the life of the mother, but he deprives the soul of his victim of the supernatural life by hurrying it into the other world without the sacrament of regeneration or baptism. Gentlemen this paper would not be complete without a word on *obstetrical abortions* or those brought on by physicians to save the life of the mother. In the whole range of the practice of medicine, there arises no situation of equal solemnity and in deciding this momentous question, religion must have a voice.

The Ontario Medical Association recently published a resolution protesting against the killing of the unborn child except in the case that the killing be necessary to save the life of the mother.

Gentlemen, Catholic ethics cannot subscribe to this resolution for the teachings of the Catholic Church declare that the killing of the intra-uterine fetus is a violation of the moral law. The doctrine of the Church is clearly presented in the decisions given by the *Tribunal of the Holy Office* which is a judicial college of ten cardinals, assisted by thirty consultors of different nationalities under the personal presidency of the Pope. As early as 1884 this tribunal declared that it could not be safely taught in Catholic schools that it is lawful to perform any surgical operation which is *directly destructive* of the life of the fetus or the mother.

Again in answer to the question whether when the mother is in immediate danger of death, and there is no other means of saving her life, a physician can with a safe conscience cause abortion, not by destroying the child in the womb, which was explicitly condemned in the former decree, but by giving it a chance to be born alive, though not being yet viable, it would soon expire. The answer was "that he cannot."

Gentlemen, God's absolute and exclusive dominion over *all human* life, involves the great principle underlying the decisions of the *Holy Office*. The embryonic child has a human soul and therefore is a man from the time of its conception. It has an equal right to its life with its mother and therefore neither the mother nor the medical practitioner nor any human being whatever can lawfully take that life. The State cannot give this right to the physicians for it has not itself the right to put an innocent person to death.

Neither the intention of saving the mother's life nor even the intention of procuring baptism for the child whose life cannot be saved, justifies the physician to deprive the unborn offspring of a life to which it has a God-given right. This accords well with the great moral principle accepted by all nations: "*It is not right to do evil that there may come good,*" (Rom. iii, 8) or in other words *the end does not justify the means*. The plea cannot be made that the child is an unjust aggressor. It is simply where nature and its own parents have put it. But some one may say, of two evils I choose the less. It is a less evil to procure abortion and destroy a fetal life than to let both mother and child die. Gentlemen, if the choice were between evils in the same order, then of course it would be lawful to choose the less. But the

choice is between physical and moral evil, and it is not right to do a moral wrong for the purpose of hindering a physical evil, the mother's death.

The shipwrecked sailors of the British yacht "Mignonette" who killed a helpless boy of 17 to feed upon his flesh and save their own lives, were condemned to death by Lord Coleridge, Chief Justice of England, for taking the life of an innocent person, though they argued that they but hastened his death to save the lives of the other men who were married and had families to support.

In a chapter in which he deals with the exception created by necessity, Justice Coleridge, quoting the words of Lord Hale, thus expresses himself: "If a man be desperately assaulted and in peril of death and cannot otherwise escape except by killing an innocent person then present, the act will not acquit him of the crime and punishment of murder; for he ought rather to die himself than to kill an innocent person."

In the case of two men on a plank at sea, which can only support one, the right of one occupant to throw the other overboard to save his own life is equally condemned by Lord Coleridge as unjustifiable homicide. It is not allowable to kill an innocent aggressor though an unjust aggressor may be killed in self-defense. The child that lies helpless in the womb of the mother, though its presence there may be a danger to the mother's life, is not an unjust aggressor.

Suppose that right after the birth of a child a jealous and barbarous husband would say to the mother: "Kill this fruit of your unfaithfulness or I shall kill you both." Should this woman now argue: "Better one dead than two," and should she strike her own child? What judge would have the courage to acquit her and praise her?

I fail to see why on ethical principles the killing of the child is permissible in one and not in the other case.

Gentlemen, if once you grant that grave reasons justify abortion, you will find it difficult to draw the line. Today the doctor is called to a mother who in your opinion will die if you do not bring on a miscarriage. The next day you are visited by a most respectable lady who has been unfaithful to her marriage vow. The consequences of her fall are becoming evident, and if her husband finds out her condition, he will wreak a terrible vengeance. The

third day comes a young lady, the joy and happiness of her parents, who in an evil hour was led astray and is now with child. If a doctor has destroyed fetal life on occasions when he deemed it legitimate practice, will he have the courage to resist on all occasions. Though I know that abortion artificially induced to save the mother's child is accepted as legitimate by medical men, I cannot but hope that the time will not be far off when your exalted profession will adopt those sound and wise moral principles that protect the unborn child and not unfrequently give a fairer chance to the mother.

The position of the Catholic moralists on craniotomy has turned the attention of many non-Catholic physicians to the immorality of the act, which formerly was deemed entirely permissible.

At the sixty-first annual meeting of the British Medical Association (1893), which counts about 15,000 practitioners, Dr. James Murphy said in his presidential address before the section of Obstetric Medicine and Gynecology: "It is not for me to decide whether the modern Cesarean sections, Porro's operation, symphysiotomy, ischiopubotomy or other operation is the safest or most suitable; nor yet is there sufficient material for this question to be decided. But when such splendid results have been achieved by Porro, Leopold, Saenger and by our own Murdock Cameron, I say it deliberately and with whatever authority I possess, and I urge it with all the force I can muster that we are not now justified in destroying a living child."

Dr. L. Charles de Boislinière, of St. Louis, author of "Obstetric Accidents, Emergencies and Operations," in a lecture on the moral aspects of craniotomy and abortion, spoke as follows before the St. Louis Obstetrical and Gynecological Society: * * * "From the moment of conception the child is living. It grows, and what grows has life. '*Homo est qui homo futurus est.*' Therefore feticide is not permissible at any stage of utero-gestation. The killing of the defenceless fetus is sometimes done in cases of pernicious vomiting, in cases of tubal or abdominal gestations. The killing is accomplished by electricity, injections of morphin in the amniotic sac, the puncturing of that sac, etc., etc. This practice is altogether too easily adopted by thoughtless or unscrupulous physicians. Is it not time that this wanton massacre of the innocents should cease?"

I have in my possession letters from prominent physicians whom I consulted in this matter and they write in the same strain.

A doctor who has been practicing medicine for 55 years told me that in all his obstetrical practice, which was very large, he had never killed a living child. In 38 years, during which he attended to a maternity ward, where he delivered two or three children a month, he had lost only one case.

Gentlemen, while the principles presented are clear, there are cases in which the right application of them is beset with great difficulties. These often occur in connection with ectopic or extra-uterine gestation, or in connection with treatment given the mother, from which abortion, though not intended, may result. But as I have already taken more time than was allotted me, I will have to leave this subject for a future occasion.

Gentlemen, I thank you for your courteous welcome and kind attention.

Medical Aspect of Criminal Abortion.*

By P. MICHINARD, M. D., New Orleans.

Criminal abortion is one of the burning questions of the day. For quite many years it has from time to time been the burning question of the day. But for some reason or other the fires would extinguish and the warm enthusiasm be chilled. Let us hope that the present fires of enthusiasm will continue to blaze until this crime is burned away.

The first question to be considered is: How many criminal abortions are committed a year and their ratio to normal births? This question is obviously difficult to answer. At the last meeting of the American Medical Association, the chairman of the Section of Gynecology in a paper read on this subject said it had been estimated that in one year there were committed 20,000 criminal abortions in New York and 10,000 in Chicago.

For quite a long time I have been endeavoring to make an estimate for New Orleans. After consulting with a large number of physicians of this city and considering the cases that applied to my service and to that of others at the Charity Hospital and to me privately, I concluded a conservative estimate would be 1,500 a year. As there are born in this city about 13,000 children a

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year, you can easily see how the population is being affected. My estimate is conservative because there are many cases that do not apply for treatment.

I am considering only whites, because we cannot keep track of the negroes.

The next question to consider is that of mortality: The records of the City Board of Health show that last year there were about 10,000 deaths from various causes; but are practically silent on criminal abortion. One would suppose from this, that criminal abortion never kills. But it does. Death from it is reported as being due to typhoid fever, peritonitis, malaria, and particularly is this true in the unmarried. On the point of false reporting I wish to call your attention to a possible error in conflicting typhoid fever with the septicemia due to criminal abortion. The range of temperature, the abdominal pain and the abdominal distension are almost alike. I know of several instances where such error was made, in some of which the discovery was made by the observing nurse. But it is astonishing how small the mortality is, and it is this small mortality, I believe, that encourages the continued perpetration of the crime. I doubt that it is more than 2 per cent, an astonishingly small mortality when the filthy, brutal methods employed are considered. But the morbidity is great. Quite a large number of them have salpingitis, pelvic abscess and pelvic peritonitis. Some require surgical treatment. Some become sterile, but generally only after repeated abortions. I have known and others have known women to have had repeated abortions committed and eventually reform and give birth to full-term children.

The condition that the physician is oftenest called to treat is hemorrhage, and that as a rule in the middle of the night, when he has to remove pieces of ovum sac which cause the bleeding. The abortionist rarely answers the calls of his or her victim at this stage.

It is astonishing how rarely death is caused by such hemorrhage. After much loss the blood pressure is diminished and the condition improves for the time, only to recommence later. I have never seen any one in a state of active bleeding, but the surroundings, the patient's blanched features, dilated pupils and all tell the story of the terrible hemorrhage. Criminal abortion is had recourse to by the poor as by the rich. There is scarcely a day that

one or more women do apply at my clinic at the Charity Hospital for treatment for the after effects of this crime. It is had recourse to principally by married women, and very rarely seen among the unmarried. And I wish to say right here that the husbands are rarely to blame, showing that the man is not so bad after all.

I have known women who had three abortions in a year; and I know a number of them who for several years have been guilty every year of this crime, and boast of it.

Many women (especially the poorer class) operate on themselves with a shoe buttoner; others pump water or air into the uterus. One woman had a shoe buttoner so hooked into her womb that she could not remove it. I was sent for and removed it. She did not abort.

Some abortionists use electricity. Others, particularly midwives, use the sound. The latter charge everywhere down to 50 cents. Think of it, killing at 50 cents!

The duty of the physician to himself and to his community in such cases: After having on two previous occasions checked the hemorrhage of criminal abortions committed on the same woman, should the physician go to her on a third occasion? By so doing would he not make himself somewhat a party to the crime?

Women have told me that no matter what happened to them a physician could always be obtained to assist them. So far as I am concerned, I have determined to refuse to go to the relief of any woman at her third abortion. I believe we owe it to ourselves and to our community to so act.

As to its prevention: Physicians are often censured for not checking or stopping this crime. We cannot do it by violent means. We cannot nor can any one else legislate morality into any person. We might help to check abortion by refusing to attend such cases. But we cannot always refuse to save life. The only way in my opinion is education. In the case of unmarried children, let the very busy merchant or professional or laboring man set aside some time to the companionship of his sons, and talk to them of the possible errors of life, and show these boys, in a delicate manner, how a good boy may accidentally fall by the wayside and ruin a girl. Let the mothers set aside for a time some of their pleasure and have a heart to heart talk with their daughters and teach them

the importance of not permitting too much freedom of behavior on the part of young men. Fathers and mothers pay too little attention to the moral education of their children at the dangerous age.

As to married women, they should be educated—educated by their pastors that what is in the pregnant womb is not a tumor but a living being made unto the likeness of God.

Pediatrics in the Chicago Hospitals and Dispensaries*

By L. R. DE BUYS, M. D., New Orleans.

During my recent visit to Chicago, where I went to become acquainted with the work and progress in pediatrics in that city, just prior to the meeting of the A. M. A., it was my good fortune to meet the men who were doing the greatest amount of work in this particular branch, and who were best able to give whatever information I desired.

It was during the week previous to the convention that I had occasion to attend a great many of the clinics given by the pediatricists and to visit the institutions where pediatrics obtained.

The schools and hospitals and dispensaries are so grouped in Chicago that two medical centers can be considered. The one, on the west side, formed by Rush Medical College, the College of Physicians and Surgeons, with, in the immediate neighborhood, Cook County, the Presbyterian, University and the West Side hospitals. The other, on the south side, made up of Northwestern University, and the Post-Graduate Medical Schools, with Wesley and Mercy hospitals near by. This grouping allows the students of each of the medical schools the advantages of several institutions for clinical education in the various branches.

In both of these centers the facilities for the teaching of pediatrics at once impresses one. While each of the medical schools has access to several of the hospitals and dispensaries, each also has its own dispensary.

The most important of the hospitals and hospital dispensaries and all the college dispensaries were visited. In some the advantage of attending a clinic given by a clinician was had, while in others the good fortune of visiting with the head of the department was appreciated.

*Read before the Orleans Parish Medical Society, July 25, 1908..

Among the hospitals visited were: West Side and the University, which are in affiliation with the College of P. & S. West Side adjoins the college and is connected to it by means of a corridor, through which patients are brought to the college amphitheater for clinical instruction. The University Hospital is in the stage of development.

Wesley Hospital, which is in affiliation with the Northwestern Medical School, adjoins it, and as in the case of the West Side with the College of P. & S., is connected with the Northwestern by corridors. This hospital has grown in recent years. In one corner can be seen the original building, of which no one can be proud, but the new building is a very well equipped hospital. More room than in the two hospitals already alluded to is given to infants and children in this institution. However, Wesley depends upon the dispensary of the Northwestern University, to which I shall presently refer, for its pediatric material.

The Presbyterian Hospital, which is affiliated with Rush Medical College, is connected to it, so that the same facilities which the other colleges have, is also enjoyed by Rush. In this institution over 2,000 patients are treated annually, so it thus affords a large amount of valuable material for clinical teaching. The top floor is devoted to the children's wards and milk laboratory. The wards are spacious, allowing of free ventilation, and the gallery space is very large, thus permitting of two of the most important requirements in the treatment of children. The milk laboratory is very well equipped for the work carried on there.

The largest of the hospitals is the Cook County Hospital, which is the charity hospital of Chicago. This institution has a capacity of 1,240 beds, and last year admitted some 26,000 patients for treatment. All the medical schools draw upon the material in this hospital for clinical instruction. A condition from which we have been comparatively free has taught, from bitter experience in Cook County, the advisability of close observation of all the female infants and children admitted for vulvo-vaginitis. It has become imperative in certain institutions in this country on several occasions to close the children's wards when the epidemic of vulvo-vaginitis has become so serious that all endeavor to suppress it has been of no avail. Experience is the best of all teachers, and the plan adopted by this institution for protection, has afforded the required im-

munity. Every female patient entering the hospital is isolated until the necessary observations and examinations have proven that she is free from this affection. With this end in view, a ward containing about ten beds is devoted to the reception of all female patients entering the hospital. In this ward the most rigid methods are adopted, so that no one patient can infect another. The occupant of each bed has her own pan, wash basin, bath tub, and material used for the treatment of individual conditions. It makes no difference from what ailment the patient is admitted, a certain period must be spent in this isolation ward before being allowed to go to the wards on the floors above. The cases found to be free from vulvo-vaginitis are transferred to the wards on the second floor and those in whom the condition is found to exist are removed to the upper floor, which is used exclusively for such cases. It has been the observation not only in the Chicago hospitals, but in the institutions in most of the large cities, that the simple vulvo-vaginitis is not as prevalent as is the vulvo-vaginitis of gonococcic origin. In going through the wards on the upper floor an infant of three weeks was seen. It was remarked that cases had been admitted to these wards as early as the third and fourth day of life. Work was being done in the vaccine treatment of the condition at the time of visiting these wards, and though the final deductions had not been drawn, there were evidences of much advancement in the treatment of the disease.

On the floors of the children's department at Cook County there **were not** many large wards, the tendency being more to the plan of dividing the space so that each room accommodated three or four patients, and for every two or three rooms there being a bath.

Among the other institutions visited were the St. Joseph's Hospital on the North Side, where the development of the facilities for the care of children was in its incipency; and the St. Vincent's Orphan Asylum Infirmary.

Last, but by no means least of the hospitals of Chicago, is the Michael Reese Hospital. This institution was dedicated to the memory of Michael Reese by one of his nephews. The new building is only one year old and is the cleanest, best managed, and most complete of all the institutions in Chicago. The building is situated on the lake front with the very best exposure. The corridors are large, ceilings high and rooms airy. Some several points are

worthy of especial mention, among which must be mentioned the infants' and children's wards. These wards are in the same building as the other wards, but are entirely isolated from the rest of the building, being only accessible through a doorway at the rear of one of the floors. Two floors are devoted exclusively to the children, and in the basement there is a diet kitchen of which the institution must be justly proud. A graduate nurse is in charge of each department and has a corps of as many under-graduate nurses as may be necessary to carry on the work of her department. The nurse in charge of the infants' and children's floors is also in charge of the diet kitchen, though she does no work in it. A subordinate nurse, but one fully capable, and having no other duties to perform, prepares the various foods and fills the food prescriptions of the attending pediatricist. Three rooms are devoted to this laboratory. In one the sterilizing and pasteurizing is done. In another the various preparations are made and the milk prescriptions compounded. And in the third room are the apparatuses needed, a churn, separator and Babcock machine, which are all run by electricity. In short, the diet kitchen is complete in every detail and shows that forethought and deliberation and experience have made it extremely modern.

Of the dispensaries in Chicago some consideration must be given, as there are some features in most of them that deserve mention.

First of all, the situation, usually in the basement, utilizes the least desirable space in the institution, allowing the other floors for lecture rooms and laboratories in the colleges, and ward room in the hospitals.

An interesting feature in connection with the clinics is the dispensary proper, where each prescription is filled at a small cost, in most places 10 cents. This insures the prescribing attendant of his prescription having been filled, with the consequent better observation possible in treatment.

Among the most important dispensaries visited were the Post-Graduate, College of P. & S., Rush Medical, and the Northwestern.

At some, notably the Post-Graduate, both morning and afternoon clinics are held, the pediatric being in the afternoon.

The dispensary clinic of the College of P. & S. has had an average of 10,000 each year for the past five years. There are ten

clinics, one of which is the pediatric clinic, which comes in for its share of the patients.

At Rush the completeness of the clinics is noticeable, particularly so in the pediatric clinic, to which branch two rooms were given, a very large room with a smaller one adjoining it. The larger room is divided into several spaces by partitions, so that the examination of six or eight patients can be made at the same time. In each division two or three students are assigned to one patient, and after the necessary examinations have been made the instructor in charge goes over the history, examination findings, and diagnosis. Anything of especial importance is of course brought to the attention of the entire class. If it be necessary, before completing the diagnosis, to make any microscopical, bacteriological or chemical or milk examination, this is readily done in the smaller room in which there is the necessary equipment. The card index system which is very generally adopted is in vogue in this clinic.

The most complete of all the dispensary clinics in Chicago is possibly the one for pediatrics at the Northwestern University.

Dr. Frank Walls, Clinical Professor of Pediatrics, and one of the first advocates of the feeding of fat free milk in this country, at any rate the first to report extensively upon this subject, has established a most systematic and thorough diet kitchen in connection with his clinic. In this kitchen there are all the necessary apparatuses to make it complete, and a cold storage, where the milk preparations are placed until called for. The work is carried on by a very competent nurse with two assistants. In some of the cases of difficult feeding arrangements can be made in this dispensary for the furnishing of human milk. Wet nurses come to the clinic and under the guidance of the head nurse the breasts are milked and the milk put in nursing tubes, placed on ice, as would be done with cow's milk, and is supplied to those for whom it is prescribed. This dispensary, in so far as expense is concerned, maintains itself.

In conclusion I wish to say that excellent facilities exist in Chicago for the teaching of pediatrics at the various colleges: Because of the grouping, about the colleges, of the hospitals and dispensaries to which they have access; the number of hospitals from which the colleges can draw for material; and the advantages of the dispensary clinics, especially where there is a diet kitchen in connection with it, over our ordinary clinics.

Practical Considerations of the Female Bladder.*

By LOUIS PERRILLIAT, M. D., New Orleans.

The *American Journal of Obstetrics*, 1896, contains two communications, one from Dr. Pawlik, of Prague, and another from Dr. Howard A. Kelly, of Baltimore, both communications bearing on the question of priority to the invention of the method of endoscopy of the female bladder, based on the dilatation of the urethra, the introduction of a sufficiently large speculum, filling the bladder with air in the knee-chest position, and inspecting the interior of the organ by direct or reflected light. The controversy helped to call the attention of the medical world to important advances in the consideration of a class of disorders that had up to that time failed to receive the attention which its frequency entitled to it. And certainly, in this country, the appearance of Kelly's *Operative Gynecology*, which contains a very exhaustive account of his method, did a great deal to popularize a technique which is, of necessity, a valuable adjunct to the armamentarium of the gynecologist of the present day.

Long ago the genito-urinary specialist in the male has devoted his best efforts to the consideration of disorders of the bladder, and if less attention has been paid to it on the part of the gynecologist, it is because the separation of the genital from the urinary tracts in the female has made it less vulnerable and easier of recovery. On the other hand, different from the male, it is in close anatomical relations with other organs, and its peculiar relation in the pelvic floor render it liable to injuries of different characters as a result of the morbidity of labor. Its blood, nervous and sympathetic systems have a common origin with these organs, and its intimate connection with the fibro-muscular diaphragm of the pelvis, make disorders of these organs prone to bring about disturbances in the functional or organic equilibrium of the bladder. The false ligaments of the bladder, five in number, are peritoneal folds, continuous with the peritoneum investing the uterus, tubes, ovaries, and their ligaments, and are probably the most constantly to blame as factors in these morbid conditions. The nervous supply of the bladder, both spinal and sympathetic, is in common with that of the uterus, vagina and rectum, and must be borne distinctly in mind in order that the functional derangements and

*Read before the Orleans Parish Medical Society, July 25, 1908.

neuroses of the bladder may be thoroughly understood. The blood supply of the bladder, chiefly from the superior and inferior vesical arteries, from the anterior division of the iliacus internus, reach the bladder through the transverse vesical fold, or posterior false ligament, or ridge of Waldeyer, the base of which is similar in structure and serves the same function to the bladder that the bases of the broad ligaments do to the uterus and cervix. Any involvement, therefore, of the parametrium by direct continuity, would explain the early bladder symptoms which develop in cases of malignancy of the cervix. The fascial connections of the bladder, forming the anterior and lateral pubo-vesical ligaments, and spreading over the whole of the surface of the bladder, giving it the fibrous coat, bind the inferior surface of the bladder closely to the pelvic floor and the vagina, and no intelligent understanding of the dynamics of prolapsus of the anterior wall of the vagina and cystocele is possible without a clear knowledge of these structures, and the part that they play in labor. For while the bladder, per se, does not resist intra abdominal pressure, through its connections and those of the urethra, it is slung in the pelvis, and does perform this function to a considerable extent in the anterior pelvic segment. The tissues between the bladder and cervix, though described as being loose in nature, are yet sufficient to unite them intimately. It is, indeed, partly through this junction that the pubic segment is elevated during labor by the upward tension of uterine contractions, though, of course, the tension tells mainly on the vaginal wall, with which the uterine muscle is directly continuous. We would have fewer cases of prolapsus of the anterior vaginal wall and cystocele if we bore this in mind and guarded against the pinching of the so-called anterior lips of the cervix against the posterior surface of the symphysis pubis in labor. It is the overstretching of these fascial supports in rapidly succeeding pregnancies, or in violent obstetric manipulations which is responsible for this too frequent class of cases.

Again, the domestic habits of womankind are such as to encourage a habitual overdistension and predispose the organ to disease or derangement. A healthy woman urinates from four to six times in the twenty-four hours, and passes, in quantity, an average of about forty-five ounces, the desire to empty the bladder being greater in the erect than in the reclining posture, due to the

difference in vesical pressure from the change in position. Muscular efforts, such as coughing, laughing, lifting, etc., increase this pressure considerably, and explains the reason why patients with a vesical sphincter of diminished resistance have incontinence at times. On the other hand, the diminished pressure in the recumbent posture is of great value in the treatment of diseases of the bladder, and has on many occasions proven the most valuable factor in following a certain line of medication. A very common illustration of this is seen in the apathetic condition of the bladder following post operative catheterization, necessitating the use of the catheter as long as the patient remains in bed, the normal functions of the bladder being spontaneously resumed as soon as the patient gets up. We had a patient once in the hospital that I had operated on for a cyst of the ovary four days previously on whom we used the catheter at first. The nurse failed to catheterize her for over twelve hours, due to the fact that the patient had had a movement of the bowels, and she thought that urination had taken place at the same time. The bladder had become distended to such an extent that, by abdominal palpation and percussion, it looked as if the cyst had returned. The catheter was used and over twenty ounces of urine withdrawn. In the erect posture the intra-vesical pressure produced by such a large quantity of fluid would have brought about an evacuation of the contents of the bladder.

The bladder in the female lies lower within the pelvis than in the male, chiefly in consequence of the absence of the prostate, and when empty never quite reaches the level of the upper border of the symphysis. When distended, therefore, it less often rises into the abdomen, since the capacity of the normal organ in the female is somewhat less than in the male. The fundus, or posterior inferior surface is firmly united by connective tissue with the anterior vaginal wall and sometimes the lower part of the uterus. When reflected from the anterior surface of the uterus on to the bladder, the peritoneum lines the shallow utero-vesical fossa and then continues upon the superior vesical surfaces. Upon the latter rests the body of the uterus rising or falling with the expansion or contraction of the bladder wall, but normally remaining in contact. A relation predisposing to the production of the concave or sunken condition of the superior surface. Hence the im-

portance of always emptying the bladder before making a manual exploration of the uterus or adnexa. Exploration of the urethra and trigone by digital examination is an easy and certain method, never to be left out in an examination of the organ, owing to the close relationship existing between the anterior vaginal wall and the urethra and trigone. Simon and Pawlik performed catheterization of the ureters per urethram by digital palpation through the anterior vaginal wall.

Another problem that confronts the gynecologist is to determine, in any given case when there is pelvic disease associated with symptoms of bladder irritability, and statistics show that the two go together in very nearly seventy per cent of the cases, how much is to be attributed to the general pelvic morbid condition. In such cases the cystoscope is of inestimable value. In the last four years I have made a cystoscopic examination of every patient with pelvic disorder, presenting bladder symptoms of more than transient nature. As a matter of fact, a number of these patients presented themselves with bladder symptoms, and it was in making an examination of the pelvic organs to ascertain the cause that the pelvic disorder was discovered. In this number of cases, very few showed any marked change in the structure of the mucous membrane. The lesion presented was in almost all cases a hyperemia of the trigone and vesical neck, which no doubt increased the sensitiveness of the neck of the bladder, and necessitated more frequent calls to urinate in consequence. This hyperemia may be looked upon as a part of the general pelvic congestion accompanying any pelvic disease, and in correcting it, therefore, the local treatment should be complemented by a connection of the initial cause if lasting cures are to be expected. A great many so-called neuroses of the bladder belong in this class. The mucosa of the bladder, supplied by the hypogastric plexus, is not very sensitive normally, except in the region of the trigone. There it is tightly connected with the muscular layer, and the loose, elastic, sub-mucous tissue found in the remainder of the bladder is absent, the difference is shown by the smooth surface of the trigone as contrasted with the rugæ of the lax mucosa seen over the rest of the interior of the empty bladder. The laxity in the superior portion of the bladder is determined by the necessity for great changes in size. At the trigonum a similar looseness of the

mucosa would encourage its prolapse, and might result in frequent obstructions of the urethral and vesical outlets. This close adhesion of mucous and muscular layer prevents free swelling when inflammation occurs, and, in conjunction with the particularly general muscular and nerve supply to the trigonum and neck of the bladder, explains the pain and sensitiveness of that region, out of all proportion to the extent of the naked eye appearance of the lesion. Frequency of micturition, as a result of cystitis, trigonitis, or urethritis, is due to a stimulus of the sensory nerves supplied by the third and fourth sacral nerves from the second, third and fourth sacral segments of the cord. The motor impulse reaches the bladder from the eleventh and twelfth dorsal and first lumbar segments through the hypogastric and pelvic plexuses. The urethra is supplied with sensation by the same nerves as is the bladder and therefore the referred pains in vesical irritation or inflammation are often felt in those regions and vice versa. The important muscular element in the vesical, as in the urethral walls, gives the "colicky" character to the symptoms of irritations and in the case of cystitis causes the violent tenesmus accompanying the discharge of the last drops of urine, when the muscles in the vicinity of the hypersensitive trigonum contract spasmodically.

In conclusion I cannot refrain from again calling attention to the importance of a vesical exploration in every case of a more than transient nature. The use of the cystoscope in the female is very simple; can always be done with the aid of cocain, and after a little experience in the technique has been acquired does not occupy more than five minutes from the time that local anesthesia has been obtained. Whether due to the sphincteric dilatation of the meatus, the sedative effect of the cocain solution on the nervous membrane, or the introduction of air into the bladder, a cystoscopic examination, after the soreness due to trauma has disappeared from twenty-four to forty-eight hours, is frequently followed by a period of amelioration of all the symptoms lasting two or three weeks. So that no harm can possibly follow its proper use. And, quoting Dr. Kelly, "the practitioner who uses it liberally will be rewarded by constantly discovering that affections hitherto decided as merely functional have definite local lesions as their basis, and are often speedily amenable to simple methods of

treatment.” And I may add that I know from experience that perhaps nothing will gain and hold the gratitude of a patient so much as the relief of a condition, which though not menacing to life, seems, by its constant annoyance to make the life of the one so unfortunately afflicted a burden.

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Shall the Average Country Practitioner Testify Before Our Juries as an Expert?

By DR. H. L. BALLOWE, Buras, La.

During the past year the subject of medical jurisprudence and its allied branches has figured very prominently before both the profession and the general public. It has been thoroughly and frankly discussed both in our own journals and the lay press. I fear that the medical expert has not come out of the ordeal with colors flying. The dignity of expert testimony has been attacked, and, in some of the great newspapers and magazines of the country the criticism not only of the expert himself but also of the profession, has been more than severe. I recall one instance in which the assertion was made that: given the proper amount of money, any number of experts from the foremost ranks of the profession could be found to testify one way on almost any medico-legal subject, and an equal number, just as prominent, to testify directly opposite.

Now, if this criticism is made of the shining lights of the profession testifying in the great halls of justice concerning cases that attract world-wide attention, what shall be said of the country practitioner giving his humble opinion at his little country court house? Is he competent to testify at all? By law he is. Our highest courts have decided that he can testify as far as his own observations go, to almost any extent. It is only when hypo-

thetical questions are concerned that experts of special qualifications are required.

I wish it understood that this paper treats of the average country practitioner alone. Of our city brothers I have nothing to say one way or the other.

The importance of the medical expert is very great on all occasions, and the opinion of the man of the country may mean just as much as that of his famous colleague of national repute. On the expression of his opinion may rest the carrying out of the decrees of justice, or the miscarriage of the same. On his statements an innocent person may be condemned to death, or imprisonment, instead of being liberated to enjoy the freedom that God gave him. At his decision an unfortunate irresponsible insane may go to the gallows instead of to the protection of an asylum; or a man may be sent to the madhouse unjustly, and though the error may be discovered, yet the stigma remains.

Can anything be more important than this? The so-called inalienable rights of man are just as sacred in the village as in the city. There should be no caste in the administration of justice, and just as much is at stake at the trial of a tramp as that of a multi-millionaire—the protection of society from crime.

Realizing his importance, shall the average country practitioner testify as an expert, even though the law gives him that privilege? I shall violate every canon of argument by saying no to the question before I discuss it. I am a country doctor myself and have had experience with my country confreres. I base my belief not only on my own knowledge, but also on that of other country physicians, also on the experience of lawyers and court officials in many country districts, and from other data bearing on the subject. No, the average country practitioner is not fit to pose as an expert where the life or liberty of an accused is at stake. I regret to make the criticism but it is my honest belief.

The subject of medical jurisprudence at the colleges from which the average country practitioner emerges, occupies but little attention, and the man leaving such a college is certainly not fit to serve as an expert unless, by his own industry and application, he acquires more knowledge. Does he do this? I fear not. Go over his library and text-books, and reference books on this subject are conspicuous by their absence. I have also discussed this phase of

the question with men selling books for the great medical publishing houses, and their report is, that the average country medical man buys very few books on this subject, and when he acquires one, he does not get any more, no matter how antiquated may be the one he has. Yet the average man, in the face of his ignorance, will appear before our juries and give testimony as an expert. Why? Because there is a need of expert testimony in the country just as in the city, and where there is a demand a supply will be found. The office of coroner exists in all country districts, and a part of the office is to give testimony more or less expert in character in cases where the coroner's services have been required. Persons suspected of being insane must be examined by a physician before being committed to an asylum by the court. Lawyers wishing to prove certain points by expert testimony will continue to offer fees that will tempt some. The notoriety that he acquires among his fellow country people by acting as an expert will attract others. No matter what is done, the average country medical man will continue to be called upon to appear at his little court house, and he will continue to respond to the call. What then must be done? We must accomplish the only thing that remains. We must improve ourselves and acquire by work on our part, such knowledge that will make our testimony truly expert in character and that will not bring the humiliation on the profession that it now does. This I appeal to you to do. This you must do. Accept no call to give medical testimony unless you are thoroughly prepared to give that testimony properly with the scant protection that the court affords you. One of the most pitiful sights that I know of is an incompetent or unprepared medical witness on the stand being mercilessly flayed by a clever and skilful lawyer. Anyone of you that has witnessed such a performance will remember your sensations.

When called upon to examine one as to his sanity, when your decision will cast an awful stigma on him, will tear him from his family, and lock him in a madhouse, do not dare accept the responsibility if your knowledge is not sufficient.

I specially appeal to our coroners to fit themselves to properly perform the duties of their office. Provide yourselves with instruments to do the post mortem examination. Do not use some cast off dull knives and saws from your office and make a mess of your

work before your jury. Do it thoroughly. Do enough. The average country jury is worse than the average country expert, I assure you. Often the coroner is all important in criminal cases and he and his work alone decide whether justice shall be done and society protected.

I shall give you an instance of this. In our parish, some years ago, a keeper of a saloon just beyond the government reservation, was murdered by a soldier. The murder was particularly brutal and evidently premeditated. While in a crowded room, the lights were extinguished, and when they were lighted again, the saloon keeper was found with his head crushed in and the soldier with a bloody beer mallet in his hands. The wounded man was taken to the fort hospital and while being carried there a second attack was made on him by the soldier. The wounded man lived something less than a day. The coroner empanelled a jury and practically no post mortem was made. I will say that he was a perfectly able man and competent to have held an autopsy had he thought it necessary. At the trial the lawyer for the accused denied that his client was a murderer, though admitting that he inflicted the wounds. He said that it was possible for the wounded man to have died of something else, and introduced two experts who swore that this was possible. The coroner had not held an autopsy and could not say anything. The lawyer mentioned cases of extensive brain and skull injury recovering. He told the jury that there was a great deal of doubt in the matter and reminded them that the accused was entitled to it. He was very eloquent and so impressed the country jury that they promptly brought in a verdict of "Not guilty." A man who should have gone to the gallows walked out of prison free, and before the year was out committed another serious crime all because the country coroner was negligent.

I sincerely hope that this criticism will not be considered pessimistic or cynical. It is not meant as such, but merely as an honest expression of an existing state. The entire body of physicians is progressing along every line of the profession, and the country doctor is not lagging behind. To-day he is a better man than ever, a better diagnostician, a better therapist, a better surgeon, employing methods with confidence and ease that were unheard of a very few years ago. As the subject of medical jurisprudence occupies a more important position among the medical colleges and

the profession in general, it will interest more the country practitioner who has not had advantage of the man receiving his degree today, and he will prepare himself to meet the new standards. For I hold that his unfitness has not been from lack of ability, but lack of interest, and when the interest is aroused the ability will not be found wanting.

DISCUSSION.

DR. HUMMEL: Unfortunately I did not not have the pleasure of listening to all the paper, but did hear the most of it. I wish to compliment the doctor for the excellence of the paper. He has dealt with the problem in a manner that must impress itself upon all of us. I would like to speak a few words in regard to expert testimony when the question of insanity is at issue. When a man is radically insane there is no trouble. Anyone can determine whether or not he is responsible. The cases which will give the most trouble are the so-called borderland cases, or the cases where shamming is suspected. The borderland cases will always give much perplexity. As everyone knows the line of demarcation between sanity and insanity is very faintly drawn. Sanity shades off into insanity by very slight degrees. We all know people who have certain eccentricities which put them into the class of cranks. They have peculiarly organized minds. No one thinks seriously about these people until they commit some crime. Then the question comes up whether they are responsible and the expert must determine if they are responsible, and their legal status must be fixed. The expert must have some intimate knowledge of insanity. Unfortunately that knowledge can be gotten only from contact with the insane. There are cases which perplex even the expert to the utmost extent. Frequently people commit crimes knowing the penalty and then set about to play crazy. In these cases, the alienist has the best opportunity to display his exceptional knowledge. Those of us who have had experience in treating and observing insane people know that they behave in certain ways, peculiar to disordered mentalization, and shamming is palpable in contrast to the actions of the truly insane.

Further, when a man attempts to sham insanity, he is liable to mix up the symptoms of various kinds of insanity, etc. Usually he goes about it in such a way that the trained eye can detect the

falsity of it. I now have under observation a man who has committed an offense. He is pretty shrewd. He is a magnetic healer and knows something of the eccentricities of the psycho-neurotic. His failure is due in my mind to his mixing up the symptoms of several forms of insanity, no two of which could occur simultaneously in the same subject. Before a physician should attempt to qualify as alienist to a court he should be able to lay claim to some practical experience in psychiatry. Practical experience is more indispensable in this branch than in any other province of medicine. The two points I would like most to emphasize are the necessity of the physician appearing as an expert knowing the subject upon which he is to testify, and the desirability of his being summoned by the Court and not by either contestant in the suit.

DR. LAZARD: Any right thinking physician will come to the conclusion that it is not so much the trouble with the man who qualifies as an expert as it is with the fact that medicine is not an exact science. When a physician goes on the stand, surrounded by a bright lot of lawyers he cannot very positively state this or that. He cannot say a thing is absolute. On the stand you have to testify that a certain thing is a fact, absolutely. It is in the mind of every man to do justice to every other man. Recently I was on the stand as an expert on the subject of gonorrhea. It was a case in which it was alleged a man had raped a child, and at the time of the examination the child presented gonorrhea. It was brought out that the man at one time did have gonorrhea, but at the time of his prison life, or shortly afterwards, had no evidence of it. The lawyer asked me if it was possible that rest in bed would cure gonorrhea. I was compelled to answer that it was possible. If it was possible for copaiba to cure clap? Again I answered, yes. I know my testimony was not of any value at all. We do not know anything in therapeutics that gives us a right to make any definite incontrovertible statement. We are not like lawyers who have the decisions of the Supreme Court; and that is what is called the law. With doctors one opinion is as good as another. Frequently the testimony of the physicians on the one side or the other has great weight with a jury, but usually neither has much of any value, and the jury settles the case like business men, with despatch and decision and justice.

Trachoma ; Symptoms, Cause and Differential Diagnosis.

DR. R. W. SALTER, New Orleans, La.

This paper is written for the purpose of inviting discussion with reference to the early recognition of trachoma. In its incipency much can be done to prevent its spread among communities. As the symptoms are so slight, and the patient is in no way inconvenienced, we seldom see trachoma in the first stage. All enlarged follicles are not trachomatous, and only those which are usually situated in the superior or tarsal conjunctiva, the changes they undergo, and the destruction produced by them are to be considered trachoma. They first make their appearance in the upper fornix, subsequently invade the tarsal conjunctiva, and there undergo change, which terminates in destruction of the eyes. In most text-books trachoma is divided into acute and chronic form. The most characteristic and important signs of trachomatous conjunctivitis is the presence of so-called trachoma bodies or follicles, around which there is a distinct diffuse infiltration of the adenoid tissue. The disease gives rise to secondary changes, especially to the formation of scarring. In acute trachoma the formations of follicles begins with symptoms of a severe conjunctivitis, viz: much redness and swelling, lacrymation, and in most cases pericorneal injection. The follicles are first formed only in the palpebral conjunctiva in the neighborhood of the fornices and outer canthi. Their development can be best observed in the conjunctiva of the upper lid, where they look at first like deep grey or yellow specks as large as a pin's head. These grow and become prominent after a few days or weeks. A moderate swelling of the conjunctiva follows with papillary hypertrophy, and this (swelling) is frequently so great as to obscure the follicles and render diagnosis difficult, or even at first impossible. Corneal complications often occur in the form of small peripheral ulcers, less frequently as diffuse vascular opacity—pannus trachomatosus. In favorable cases the conjunctiva may be restored to its normal condition in a few weeks after the resorption of the follicles or the disease will gradually pass into the chronic form. Chronic trachoma is divided into three stages: (1) the development of the follicles, (2) their destruction, and (3) the process of cicatrization. At the commencement of the first stage, the stage of development and growth of the follicles, there

is frequently nothing to be seen externally about the eyes. The process often goes on for some time in one eye only, the other not being affected for weeks, months, or even years. The palpebral conjunctiva shows some redness, slight swelling, and either a quite smooth surface or a little papillary hypertrophy on the upper tarsus.

In the tarsal conjunctiva and fornices the rudimentary follicles above mentioned—"the crude or primary granulations"—can be seen, especially with the aid of a lens. The subjective symptoms are slight; a few flakes floating about in the lacrymal secretion. The process may remain in this initial stage for several months, until the primary or elementary granulations gradually develop into full-formed follicles or trachoma bodies; these become more marked, and acquire their characteristic appearance. The development of follicles of different sizes are often seen beside one another in the retrotarsal folds or scattered here and there, or in small groups in the folds and in the tarsal conjunctiva. Primary deposits and follicles of different sizes are often seen besides one another in the same eye. The inflammatory symptoms gradually increase, some edema of the lids and ptosis appear, the edges of the lids lying tightly apposed to the globe. The follicles are found quite over the mouths of the Meibomian glands, and are larger towards the retrotarsal folds. These show large transverse folds filled with granules, besides marked papillary swelling, so that on eversion of the lids thick, firm masses project. The papillæ are dark red, flesh-colored, or raspberry-like opaque bodies, having at first the appearance of close-cut velvet. They may ultimately develop into larger cockscomb-like growth, whilst the fully formed follicles are round or oval greyish red or greyish yellow bodies, like a frog's spawn or sago grains. Frequently they are arranged in rows like a string of pearls, and are often surrounded by a rich network of blood and lymph vessels. The palpebral conjunctiva is much congested, while the lashes are matted together by flaky or viscid discharge. The semilunar fold and caruncle are swollen and injected; the ocular conjunctiva is also much congested, and at times shows a few follicles here and there. There is an increase of the subjective symptoms, viz: burning, and pricking pain, gumming together of the lids in the morning, ptosis, lacrymation, more or less photophobia, and impairment of the vision. The lid margins are often inflamed,

and the cornea may become affected in this phase with typical pannus, which invariably begins at the upper margin, or diffuse superficial opacities, or superficial ulcers may occur. In some cases the cervical and even the axillary glands may be swollen. The process may remain in this stage for months, and then gradually retrogress without any sudden change. The second or degenerative stage, with breaking down and ulceration of the follicles, is ushered in by increased swelling and thickening of the conjunctiva due to diffuse lymphoid infiltration of the adenoid tissue. The follicles become confluent, and are no longer visible as projecting granules on account of the intense general infiltration. They now appear as round yellowish spots in the midst of the tightly stretched conjunctiva, which is slightly injected, in some of the cases firm and gelatinous, dirty yellowish red in color. The papillary swelling has now diminished, scarcely any trace remaining. The ocular conjunctiva is much congested, opaque, thickened and discolored. The surface of the follicle has broken down, and on pressure the softened contents protrude in the form of a comedo-like plug. There are often minute depressions, and small, thickly packed crateriform ulcers at the sites of the follicles. The congestion again increases, and the surface may present the appearance of a granulating wound. Many of the follicles like the surrounding adenoid tissue, undergo transformation into dense fibrous tissue. The secretion has now increased also, and is no longer mucous and flaky, but purulent and, as we know from experience, intensely infectious. At this time several phases of the disease may frequently be seen simultaneously in the same eye, especially fully formed follicles, small crateriform ulcers, and commencing scarring. In the second stage the upper lid is usually more affected than the lower; the process is still in full activity in the former when it has already nearly passed off in the latter, or perhaps entered the cicatricial condition. Possibly absorption of the inflammatory products is favored in the lower lid by the fact that the conjunctiva is less stretched and folded, and there it remains relatively at rest. The subjective symptoms are distinctly more marked in the second stage, and the complications are more frequent and severe. Besides the inflammatory changes at the margin of the lids, the tarsus has become more or less involved; moreover, the pannus has reached its greatest development, and has led in many cases to softening of the cornea,

which bulges either partially or completely as a result of the intra-ocular pressure. Corneal ulcers are very common, and in about 90% of the cases vision is impaired. The palpebral fissures are narrow, the lacrymal ducts become more and more implicated, the puncta lacrymalia, especially the lower, becoming reduced in size, obliterated, and everted, whilst the semilunar fold and caruncle are blended together into a single gelatinous mass. As the conjunctiva becomes more and more disintegrated and converted into fibrous tissue, the severe inflammatory symptoms die down, and the process merges into the third stage, that of cicatrization. The actual trachomatous process thus ends in the conjunctiva being gradually transformed into connective tissue. The adenoid tissue is destroyed, the conjunctiva becoming pale, and the discharge mucous, viscid, and often stringy, or disappears entirely. Not infrequently the edges of the lids are coated with a fine white foam, which collects into large flakes, especially at the canthi; this represents the altered Meibomian secretion. In the retrotarsal folds the remains of gelatinous tissue often persists, surrounded by cicatricial band, and under the scarred conjunctiva there are concretions and small cysts with pultaceous or fluid contents.

In the less advanced cases the cicatrices appear as spots, streaks, networks, or irregular strands, or the conjunctiva, especially in the fornix, presents a dull, bluish-grey appearance, as if covered with a thin layer of milk. In severe cases the conjunctiva loses its transparency, and becomes transformed into a tense, smooth, greyish white or greyish yellow mass of scar tissue. The upper tarsal conjunctiva shows a uniform depressed cicatricial surface with a tendon-like lustre (Arlt's scar streak), and from this fibrous process radiate outwards. The contraction of the cicatrix leads to symblephron, distortion, entropion, trichiasis, distichiasis, and narrowing of the palpebral aperture, with extensive changes in the lacrymal apparatus. The caruncle and plica semilunaris form a gelatinous band or become unrecognizable; or the caruncle may be represented merely by a small yellowish granular node. Pannus disappears to a large extent in this stage, though the diffuse opacities that follow it remain; or there may follow leucomata, anterior staphyloma, irido-choroiditis, secondary glaucoma, or phthisis bulbi. The ducts of the lacrymals and other glands become obliterated by cicatricial contraction, so that the mucous

membrane is no longer moistened. The epithelium becomes dry, assuming a grey appearance like epidermis, and the same condition extends to the cornea, which becomes quite opaque. This, gentlemen, is the course, symptoms, destruction and sequelæ which is so characteristic of disease. Trachoma is apt to be mistaken for follicular conjunctivitis in the first stage, and indeed it is often very difficult to distinguish on the first examination between the two conditions. Swollen follicles may be the result of irritants of various kinds, such as dust, foul air in school, dirty eye-washes, the instillation of atropin, and it is also associated with ametropia. Follicular conjunctivitis is sometimes produced by irritants in anemic and scrofulous persons, but never trachoma. In follicular conjunctivitis they lie in a soft, perhaps slightly congested conjunctiva with no involvement of the subjacent structures, they are less numerous, smaller, and have glassy, transparent, a well-defined outline. They appear to be on the conjunctiva rather than in it, and they are usually not found on the upper lid. They seem to be horizontally oval, sometimes arranged like a row of pearls, show no tendency to spread and seldom affect the tarsal conjunctiva. In trachoma the follicles are round, large and coarse, grey or greyish-yellow in color, less transparent, well defined, confluent and lie deep in the tissues in several layers one above the other. Always affecting the upper lid, and becoming softer at the later stage. The presence of follicle in the fornix is particularly characteristic. In follicular conjunctivitis the follicles disappear in several weeks or they may persist for a longer period, and not undergoing any changes, and then disappearing without any or only the simplest kind of treatment. While in trachoma the follicles undergo definite and characteristic changes, which terminate into cicatrization or cirrhosis of the conjunctiva, with various sequelæ—pannus, corneal ulcer, leucomata, anterior staphyloma, secondary glaucoma, entropion, trichiasis, distichiasis and exophthalmia. In acute trachoma, where the inflammatory condition is severe, and the conjunctiva is intensely swollen, so as to hide the follicles or granules, and the secretion being purulent, with enlargement of the pre-auricular gland, is apt to be confounded with gonorrheal ophthalmia. The microscope will determine the presence or absence of the gonococcus. Perinaud's conjunctivitis might be mistaken for acute trachoma, as in this disease large

pedunculated bodies resembling the pale raspberry-like and cockscomb growths exist. The pre-auricular, retro-maxillary, sometime the cervical glands are swollen, which suppurate in some cases. The lids are edematous in severe cases, with fever preceded by a chill. The affection is usually confined to one side. Vernal conjunctivitis or spring catarrh may stimulate cicatricial trachoma, as the tarsal conjunctiva presents a milky-white appearance due to the proliferation of the epithelium. The absence of scars, pannus, corneal ulcer, etc., with hypertrophy or gelatinous thickening around the limbus. Tuberculosis of the conjunctiva may be confounded with trachoma in the first stage. The history of the case will suffice to distinguish it or if the history is not sufficient a microscopical examination of a node will suffice. In chronic conjunctivitis of long duration the follicles will be enlarged. Conjunctivitis in all of its forms, blepharitis marginalis and ciliaris are frequently diagnosed "trachoma." Dr. Taliaferro Clark, of the Public Health and Marine Hospital Service, emphasizes "that the diagnosis of trachoma was more difficult among immigrants than in ordinary hospital clinics, because of the systematic use of such applications as adrenalin and various caustics among the infected individuals before starting from foreign countries, and even on board of ship to improve the local conditions. The cicatricial changes are considered the most important in diagnosis by the Marine Hospital Service, and acute cases were held for a week to see if such were present after the catarrh had subsided." Ptosis and narrowing of palpebral fissures are the most important objective symptoms of trachoma. Again, ptosis is often the only symptom which causes the patient to seek skilled aid by interference with vision, and producing the "sleepy look" which is so characteristic. Pannus is not a constant symptom, but when pannus is typical it is presumptive evidence of this disease. Trachoma is contagious, and the contagion is resident in the secretion. In public institutions, asylums, barracks, work-houses, jails, or wherever people are crowded together in quarters, lumber and railroad camps, and permitted to use the same wash basin and towels, trachoma will sooner or later manifest itself should there be one unsuspected person having the disease. The fingers are capable of transferring the contagion, and in Egypt flies are to be looked upon as disseminators. Syrians and Sicilians are the most fre-

quently affected with trachoma of all the immigrants. The Chinese, Japanese and Mexicans suffer frequently with trachoma, and especially the Mexicans, who are a menace to the communities on the border. The immigrant inspectors are extremely suspicious of Syrians, and in fact I have been informed by them that they believe that the Syrians have trachoma more than all of the immigrants that come to this country. The Bulletin of Public Health and Marine Hospital Service reports that for the fiscal year ending June, 1907, that 29,000 patients with trachoma were prevented from embarking at foreign ports, and 1,600 individuals with the disease were certified as having trachoma on arrival.

DISCUSSION.

DR. ROBIN: Trachoma is a very important subject. The disease is known among the laity as "granulated lids." The form of granulated lids that Dr. Salter spoke about is a dread disease. It is almost always attended by some tissue changes, which are almost always bad for the eye. The disease is so dreaded that the United States has raised its barriers against aliens who are supposed to have the disease. Therefore, upon the diagnosis of the disease hinges the question of whether the alien shall be transported, or allowed to come in. The diagnosis is a very difficult one in the primary stages of the disease. It is hard to tell whether the patient has trachoma or a condition which simulates it in the earlier stages, called follicular conjunctivitis. The conditions are similar in the early stages of the two diseases. The diagnosis is so hard that in the case of a little boy about twelve years old it took me and my associate, who has had ample experience in that disease, six months to make the diagnosis. It was only after having treated the patient for that length of time that we could say that he did not have trachoma.

Further Observations on the Nasal Treatment of Spasmodic Asthma.

By GORDON KING, M. D., New Orleans.

My chief excuse for bringing this trite subject before you is that I feel convinced it has not received the serious attention it merits, either among my confreres of this specialty or the general

practitioners—especially in the light of more practical knowledge developed along these lines, by experimentation and clinical observation during the past five years.

In a paper written for this Society three years ago, which I was deterred from reading on account of an overcrowded program, I made references to some clinical researches I had just begun in the treatment of spasmodic asthma, and the following year recorded the results of my investigation up to that time, in a paper read before the Mississippi State Medical Society, at Jackson.

My interest in this subject has been inspired by a monograph by Alexander Frances, published in 1902, and which had apparently been accorded very meagre consideration by the profession, especially in America. Being impressed with the simplicity of the method advocated by the author and the frankness of his argument and feeling, perhaps, that some light might be thrown on a subject which, in my own mind at least, cried for enlightenment, I plunged with all due skepticism into investigation of the value of Frances' method and his claims.

The conclusions evolved by my own experience has forced upon me the determination to enlist, if possible, the interest of my fellow-physicians in a treatment for asthma which, though by no means infallible, at least offers in many cases a simple and effective means of palliation for this most distressing and obstinate affection.

The essential etiology of asthma has always been and is still, to a degree, clouded in some mystery, and if time and your patience permitted, I should be tempted to review and discuss the many and varied theories evolved by medical writers in the past as it is one of the most entertaining chapters in the history of medicine. I shall, for the sake of brevity, at least, spare you any unnecessary fatigue and endeavor to hold your attention to the points of practical importance I wish to bring out.

To begin with we may speak of three clinical types of the disease and by this general classification eliminate those that come not within the scope of this brief essay.

In the first division, we place that condition commonly referred to as "Symptomatic Asthma"—a condition of dyspnea dependent upon pulmonary edema, or depression of the respiratory center due to lesions of the kidneys, circulatory insufficiency or intra

cranial disease, the treatment of which must be directed to the essential cause, and which we promptly dismiss from further consideration in this article.

The next and most frequent form is the reflex asthma, in which we can usually determine some local cause of irritation affecting the respiratory organs direct or through sympathetic nerve connection, in illustration of which also we may mention those causes due to gastritis, bronchitis, constipation, etc.

The third type bears the vague title of essential or spontaneous asthma attributable to hereditary influences or central lesions wherein we can discern no definite exciting cause nor do aught than speculate as to its *raison d'être*. That the two local types—the reflex and the essential—are clearly allied and dependent upon the same fundamental cause, is scarcely to be doubted, and that such fundamental cause is to be found in a peculiar instability of the nervous system, is the generally accepted theory. This instability exhibits itself in a reflex excitability of the respiratory center or its nerve terminals, whereby a spasmodic tonic contraction of the muscles of respiration is brought about through some psychic or physical irritation. The tonic spasm involves chiefly the smaller bronchioles and apparently the diaphragm and thoracic muscles, preventing free entrance of the air into the pulmonary vesicles. This spasmodic action affecting the bronchioles can be artificially produced in animals, as has been demonstrated in the highly interesting experiments of Dixon and Brodie, by electrical excitation of the vagus nerves.

According to these authors, the same effect is produced by excitation of the nasal mucous membrane—especially that covering the postero-superior part of the septum, and that they were unable to obtain the same result by stimulation of any sensitive nerve of the cornea, skin, stomach, or intestines. Section of the vagi prohibited the tonic contraction.

It seems rational to conclude from this that the nasal mucosa bears some essential and unique relation to the reflex act in most cases of purely reflex asthma and that other centers of irritation, as the stomach or intestines, have but an indirect influence bearing on the stability of the nervous system.

In other words, this lack of normal ability of the nervous system, characterized by sensory nerve hyperesthesia, excessive re-

flex excitability and various other neuroses, is an essential factor and the fundamental cause of the asthmatic paroxysm, and it may be inherited or acquired through influences acting on peripheral nerves. In hay fever, a kindred reflex phenomenon, and often associated with asthma, we find a similar neurotic predisposition, which is essential in the production of the attack when the local exciting cause is applied.

In the treatment of reflex asthma, therefore, the rational course to pursue is to either restore the nervous system to its normal state of equilibrium or else prevent the local irritation which is the cause of the reflex act. To accomplish the former object is never an easy task, as you will all agree, and in the absence of any apparent exciting cause to remove, we are often forced to rely upon palliative measures, which are frequently ineffective and sometimes harmful.

The treatment advocated by Frances, based practically on the theory of Dixon and Brodie, viz: that the pituitary mucous membrane is the starting point of the reflex impetus, consists simply in destroying by cauterization the hyperesthetic sensory nerve filaments on the part of the membrane indicated as the spot most sensitive to the local irritant producing the paroxysm. At the time his monograph was written he had treated more than 500 cases in which he claims to have obtained over ninety per cent. of cures or marked improvement.

As asthmatic patients comparatively seldom apply to the nose specialist for treatment, my own experience is decidedly more limited, but I have collected the records of thirty cases coming under my observation, in fifteen of which complete relief was obtained through cauterization of the septum. Of the remaining fifteen, twelve showed marked improvement in severity of paroxysms and diminished frequency, and in three practically no improvement was obtained. These last three were of long duration and showed physical signs of marked emphysema. Clinically these cases ranged from mild attacks of dyspnea, in which asthmatic rales were heard on auscultation, to the severest forms, with all the distressing phenomena incident to such attacks and varied in duration from a few weeks to fifteen years. While I have not been able to obtain as satisfactory results as reported by Frances and cannot confess to the same degree of enthusiasm as our English

confrere, yet my confidence in the method as a simple and effective means of palliation in a great many cases, is already firmly established. It is but just to explain that the cases I record as cured may be cured only temporarily, as sufficient time has not elapsed in which the permanency of the result can be established.

Also, it is not my belief, by any means, that all cases of asthma can be cured, or even benefited by the nasal cauterization. Those most rebellious are the cases of hereditary predisposition, exaggerated neurotic temperament and those complicated by long-standing bronchitis and emphysema, in which only palliative results may be hoped for.

The simplicity and harmlessness of the treatment recommends it, at least, for trial by all who have such cases to contend with, and may be explained in a few words. Under cocain anesthesia the upper part of the septum corresponding to the middle meatus is cauterized in linear fashion, beginning opposite the anterior end of the middle turbinate and approaching the vestibule and anteriorly. The membrane is burned very superficially, as otherwise the cartilage is exposed and there is delay in healing. In some cases it is sufficient to burn only one side and in others both sides may have to be cauterized over a large area. If septal spurs, ridges, deviation, nasal polypi or hypertrophies exist, they should be corrected by appropriate treatment.

Prompt modification or complete relief of the next expected paroxysm can be looked for, if the treatment is to be effective. If the attacks disappear for a time and recur, a repetition of the cauterization usually is as effectual as the first. Only recently a case has returned to me with a recurrence after two years and has been again relieved by a reapplication of the cautery.

The cases seemingly most amenable to relief are the purely spasmodic types, having the lungs free of rales during the intermissions, and bearing no long-standing lesions of the nose, such as polypi and septal irregularities.

Whether or not the theory of nasal origin be correct, sufficient clinical proof has been obtained to demonstrate that the nose is undoubtedly a factor of the greatest importance in spasmodic asthma and even if the treatment of that organ gives no better results than obtained in my modest series of cases, is it not well worthy a fair and thorough test?

I trust I have succeeded in eliciting your interest, if not your belief, in this simple procedure in the treatment of a most distressing malady.

DISCUSSION.

DR. DUPUY: About a year ago the doctor was kind enough to call my attention to this treatment. My own experience has confirmed what he has said. In a majority of cases there seems to be a marked benefit. In a record of possibly fifty (50) cases there have been few recurrences. Temporary relief, lasting from six months to a year, can be obtained in selected cases of asthma by applications of the galvamo-cautery to the hyperesthetic areas of the nasal mucosa.

The Uses of Dionin in Diseases of the Eye.

By ERNEST A. ROBIN, M. D., New Orleans.

There is an old adage that when there is much smoke there must be fire. Since Darier first called our attention a few years ago to the excellent results obtained by him with dionin in some diseases of the eye a flood of literature has come upon us from all parts of the world, proclaiming its wondrous virtue in a large variety of eye affections. If only half of what we read about this drug is true then surely we must set aside for it a favored place in our armamentarium of well tried remedies. We will give here the results of our experience with it to this date.

Dionin is an artificial compound known in pharmacology as ethylmorphin hydrochlorate. It is a white odorless powder freely soluble in water, sparingly in alcohol and insoluble in ether or chloroform. In a watery solution it has a neutral reaction. It is used in the eye either in the form of watery solution, ointment with petroleum base, or powder.

Its general physiologic action is similar to that of morphin, but it is claimed that it is less toxic and does not produce nausea, constipation or habit. The respiratory and cardiac centers are unaffected.

Applied to the eye, either as solution, ointment or powder, it produces marked edema of orbital and bulbar conjunctivæ and lids, sneezing, vaso dilation, burning and lachrymation, and sup-

posedly lymphatic extravasation followed by analgesia lasting from two to forty-eight hours.

According to Snyder, of Toledo, Ohio, who made a thorough study of the tissues clinically and microscopically, the action of dionin is purely local, greatest where the drug has actually rested. He says that its most marked action is in eye ball in which the tension is increased and he believes its entire action can be explained by saying that it has some disassociating action on the intercellular cement substance allowing a transudation of serum from a globe under pressure. That its analgesic action is to be explained by its lessening of tension and thus relieving pain and by the well known action of the derivatives of opium.

At our clinic of the Eye, Ear, Nose and Throat Hospital it has been used with success in a number of eye affections. We have been particularly successful in clearing up recent opacities of the cornea, in young and old, whatever the cause. We have seen two cases of corneal opacity following the Saemich incision for hypopion keratitis clear up completely with exception of a thin line of opacity at the site of the incision, after a few weeks of dionin applied daily in powdered form.

We have noticed decided amelioration of symptoms in cases of acute uveitis especially where there was increased intraocular tension. In two cases, we noticed the rapid disappearance of desemetitis, ciliary injection and return to normal vision after three days' use of a ten per cent. solution of dionin three times a day.

In acute iritis, when the iris resists dilation and the persistent pain would indicate the use of leeches, the application of dionin in powder has in a number of cases given most satisfactory results in relieving pain, promoting absorption of pupillary exudates and assisting atropin in the dilatation of the pupil. Although it has been observed that, in exceptional cases dionin has produced marked miosis in iritis, we have found it a very useful adjuvant in the treatment of these cases especially in breaking up posterior synechiæ and as a potent analgesic. This case illustrates well its value, because in addition to multiple posterior synechiæ of a week's duration, the iris showed a large gummatous infiltration, the adhesions resulting from which seldom yield to the usual treatment. Patient, a white man, 35 years old, came to

the clinic April 8, complaining of severe pain in right eye and supraorbital region, for a week. He presented secondary syphilides on face, trunk and extremities. The pupil was markedly contracted, iris intensely inflamed and in outer quadrant presented a gummatous infiltration. We used at once powdered dionin and atropin. The pain was much reduced next day, but pupil did not begin to dilate until the 8th day, when several synechiæ broke loose. Three days later the pupil was evenly dilated to maximum and pain and gummatous infiltration completely gone. We used also inunctions of Arlt's ointment 1 dr. twice daily on forehead and put him on iodide of potassium in increasing doses, the highest being 36 grains three times a day. On May 5 he was practically well. R. V. equal 20/30. Ophthalmoscope showed fine dust like opacities of vitreous.

We have seen two cases of complete opacity of the cornea following recent parenchymatous keratitis in old men, where vision was reduced to light perception. In both cases the opacity cleared up after using dionin, first in five per cent. solution, then in ten per cent. solution and lastly in powdered form. The treatment extended over six months. These patients now see well enough to go about in crowded streets without a guide. We have records of three cases upon whom dionin was used to promote absorption of the lens after discission, where its action seems most convincing. The first case was one of soft cataract in a woman thirty years old. After three discissions on the same eye, the lens remained about two-thirds unabsorbed for three months. We instilled a few drops of ten per cent. solution of dionin. This was followed in a few minutes by a violent reaction. The next morning the lens was completely broken up and the anterior chamber was filled with its fragments. The treatment was kept up daily and at the end of two months the lens was entirely absorbed, when the vision in that eye with a plus 11^s=20/30.

The second case, a woman 23 years old, had had three discissions made by us to her lens for its removal on account of high myopia, and as about half of the lens remained unabsorbed for four months after the last discission we decided to try dionin to promote its absorption. We began with a ten per cent solution, once daily for three days, at the end of which period the reaction began to be very faint. After three days' rest we repeated the instillations for

another three days and then proceeded to use it in powdered form daily. At the end of four weeks the lens was almost gone. The treatment was kept up and two months and a half later there was a total absence of lens matter and vision with a plus 2^s=20/30.

The third case, that of a girl 11 years old with partial dislocation of both lenses. The vision being much reduced on account of the irregular astigmatism, we decided to remove the lens by absorption. A successful dissection of the anterior capsule was made; this was followed by moderate swelling of the lens on following day. The pupil was kept well dilated with atropin instilled daily at clinic. The absorption process appearing very slow after four weeks' watching, we placed some powdered dionin into the eye. The reaction was violent. Next morning, large fragments of lens matter were floating in the anterior chamber, but the tension of eye remained normal. Absorption of the lens went on rapidly afterwards. Atropin and dionin in powder used daily in clinic. Two months later the lens was practically gone. We have tried dionin faithfully in cases of opacities of the vitreous without any positive results. We have also had to record a practical failure to clear old opacities of the cornea.

From its physiologic action and our present clinical experience we regard dionin as full of promise, but further observation only will determine its full value and range of action in the therapeutics of the eye.

DISCUSSION.

DR. SALTER: Dr. Robin has beautifully proclaimed in his paper the action and uses of one of the serviceable drugs that have been recently introduced in ophthalmological practice. In interstitial keratitis the action of dionin in hastening the absorption of the infiltration seems almost magical. Powdered dionin in iritis not only produces dilatation of the pupil, but allays the pain. The action is more pronounced in blonds than in brunettes (the word brunette has no reference to negroes). Although Dr. Wolfberg, of Breslau, first drew our attention to the use of dionin in the treatment of eye disease, still we are indebted to Darrier, of Paris, for his demonstrations of the efficiency of this drug. Bernstein, of Kalamazoo, claims to have caused the absorption of senile cataract by the sub-

conjunctival injections of this drug, he being the only one to make this claim. It is better to wait for further reports from different observers.

DR. ROBIN (in closing): I must say I have never noted anything special as to the different reactions in blonds and brunettes. It may be I have not paid much attention to it. I have noted, however, some violent reactions in negroes, and as a rule they are decided brunettes. According to Snider, of Toledo, the action of dionin is purely local, and I believe he is right. He has made a thorough investigation of the action of that drug. His idea that it has a disassociating action on the intercellular cement substances of the eye I believe is a good one. That it is an inflammatory condition I do not believe. I would like also to call attention to the analgesic action of dionin, which I did not speak of at much length in my paper. Sometimes in iritis we use dionin not only for its action in promoting absorption of pupillary exudates, but also for its analgesic effect. This effect we sometimes fail altogether in getting, and at other times we may for the first two or three applications have wonderful results in that line, and again it will afterward fail entirely to relieve pain, so that we have to adopt other lines. Generally speaking, however, its action is very happy, indeed.

Orleans Parish Medical Society Proceedings.

President, DR. AMÉDÉE GRANGER.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.

DR. HOMER DUPUY and DR. S. K. SIMON.

MEETING OF JULY 18, 1908.

DISCUSSION OF SYMPOSIUM ON CRIMINAL ABORTION.

DR. LEBEUF: Father Biever and Honorable Porter Parker should be thanked for their addresses to-night; but the real gist of the whole subject is in the latter part of Dr. Michinard's paper, i. e., education. I have practiced for twelve years among the low Italians and Germans and for the last ten years among the better

element, and the women do not realize that the contents of the womb is a living being. The whole thing is education and should be properly taught by the parents and the clergy. The physician recognizes these facts, but not the woman. In my office I teach them that the child has a soul from the beginning of conception. Several years ago I brought a case before the District Attorney of this crime, but the woman refused to testify and nothing was done. Later Attorney General Guion explained the defects of the law to me and told me the only two successful prosecutions in the State were by Judge Lea, who was successful in placing two abortionists behind the bars. The present law allows the woman upon whom the crime is committed to excuse herself from testifying, as she is *particeps criminis*, and the presiding judge is bound to protect her. A solution of this I suggested at the November meeting of the Tri-State Medical Society at Shreveport last year. It is to adopt the law similar to the bribery law, which successfully convicted half a dozen councilmen some years ago, during Mr. John Fitzpatrick's administration. Change our present law so as to allow a woman to testify without that testimony counting against her, just as the bribe-givers were allowed to testify against the councilmen, without being incriminated. It may be still possible to do some good in that way, but the most good, I am certain, will be accomplished by a vigorous campaign of education.

DR. L. SEXTON: So long as human nature is the same, unscrupulous persons will accept abortion fees from girls who wish to hide their shame and from degraded women who do not mind destroying their babies in utero, if bringing them to maturity will interfere with their society functions, waist line, or Delsarte curves. There are many more abortions among the married than single women, more among the so-called society than in the poorer classes. One way of combating this evil is to strive among the very young to develop the mother instinct in girls as early as possible. A substitution of the old-fashioned dolls for the Teddy bears would be a move in the right direction. Another way to lessen abortion among young unmarried girls is to provide a way for their secret confinement and the adoption of their babies into proper families or institutions after they are brought into the world. Our recent medical bill provides that license may be abrogated by the Board of Health from any doctor or midwife for gross unprofessional con-

duct. Certainly an abortionist would come under this head, and with proper proof established it would be an easy matter to call in the license of all those who flagrantly disregard the law. True, we have some few doctors who are outside the pale of decency and medical societies who disgrace the calling by producing abortion, but these quacks are in no greater number than are the "black sheep" in all other callings.

DR. THIBERGE: We cannot legislate morality into any one nor can the law stop the evil entirely, but I do think that the law can check the evil if it cannot suppress same entirely. We should make a vigorous attempt; then the abortionists would not be so bold. By looking over British medical journals, I notice many convictions for this crime. Why not here? Judging from excerpts in different American medical publications, convictions are secured in the Northern and Eastern States on purely circumstantial evidence. No—never in Louisiana. A second suggestion, while not original, should be to report all abortions to the Board of Health for publicity. This might tend to stop the evil.

DR. KEITZ, SR.: I do not get many applications for this kind of work by reason of my well-known antagonism against criminal abortion. Criminal abortion is murder. I would get out of the medical profession, and branch out into something else if I could not make a living except by committing crime. My advice is not to go to cases of hemorrhage from criminal abortion at all. I refused once to go to such a case, and the messenger threatened to have my license taken away because I would not help the bleeding. A woman committing this crime should die, as she has taken human life, and her life should be the penalty. A woman confessing this crime to me some years ago was told plainly that she was a murderess. I once saw a case of pregnancy advanced seven months and she criminally aborted. A notorious abortionist induced it by the injection of black fluid into the uterus by means of a syringe—and a certain instrument dealer here furnished the instrument, made to order for that purpose. Would like to call attention to-night to an untouched point, that is, when a woman comes to us for examination, with abortion as a possible object, stating menstruation has stopped, should we tell her she is pregnant? Or should we deceive her and give her some digestive ferment and let her go until the fetus becomes of such size that she will be unable to hide the fact?

Should we tell the results of our examination and say at once: "Madam, you are pregnant"—or delay until such time that she cannot hide it? There is not enough money in the State of Louisiana to induce me to commit murder.

DR. JACOBY said that he was surprised to hear any one advocate that one should wait till the fourth abortion before refusing to attend. It seemed to him that the physician should refuse to accept a call to the same woman for an abortion the second time. He felt that a united and determined stand on the part of the profession in the medical society along such lines and the gaining of evidence against the parties doing this practice would do much to eradicate the evil.

HON. PORTER PARKER read a paper entitled "*The Legal Aspect of Criminal Abortion.*" (Manuscript not furnished Publication Committee.)

Miscellany.

THE EYE-MOVEMENTS IN CEREBELLAR IRRITATION (*Über die Augenbewegungen bei Kleinhirnreizung.*—A. Lourié. *Neurol. Centralbl.*, Feb. 1, 1908, p. 102.)

The author maintains that he has demonstrated that the cerebellum has no influence upon the movements of the eye-balls. He concludes from his experiments that the surface of the cerebellum does not contain centres for the movements of the eyes and facial muscles, but he does not appear to have made observations upon the effects of irritating the intrinsic nuclei of the cerebellum, so that he is hardly justified in saying that there are no special centres in the region of the cerebellum for these movements.

VAN W.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Medical Reserve Corps, U. S. A.

Acting under the provisions of the Act of Congress, approved April 23, 1908, "To increase the efficiency of the Medical Department of the United States Army," Surgeon-General O'Reilly has been prompt to start the work of establishing such a reserve as was intended by the Act.

The flagrant inadequacy of method in organizing a proper medical auxiliary in the Spanish American War has perhaps been the largest factor in the present movement. Now it is proposed to create a reserve corps, carefully selected among reputable graduates in medicine who shall be commissioned as first lieutenants in the army and who shall be kept in touch with the department. They may be called into active service in case of need, when their position would rank next below all officers of like grade already in the army and in the order of appointment.

The abolition of the former "contract surgeon" and the establishment of ranking grades based upon equitable methods is enough excuse, if one were needed, for the reserve corps.

While members of the Reserve Corps receive no pay while not in active service, whenever they might be on duty the pay is the same as that of officers of like grade already in service, together with appurtenances. The general purpose of such a reserve corps should appeal to all well-intentioned physicians from the standpoint of patriotism and of natural pride. The response generally on the part of the profession means the selection of a qualified body of men, passed upon in times of peace, and kept informed of military requirements in case of need.

There is decided honor attached to membership in such a body, and the conditions are so generous and simple that the government should have a host of applicants for service. The free will in

the matter of service on active duty is so clear in the Act itself that we may conclude by quoting it:—

“Section 8 * * * In emergencies the Secretary of War may order officers of the Medical Reserve Corps to active duty in the service of the United States in such numbers as the public interests may require, and may relieve them from such duty when their services are no longer necessary;

“*Provided*, That nothing in this Act shall be construed as authorizing an officer of the Medical Reserve Corps to be ordered upon active duty as herein provided who is unwilling to accept such service, nor to prohibit an officer of the Medical Reserve Corps not designated for active duty from service with the militia, or with the volunteer troops of the United States, or in the Armies of the United States, in any other capacity, but when so serving with the militia or with volunteer troops, or when employed in the service of the United States in any other capacity, an officer of the Medical Reserve Corps shall not be subject to call for duty under the terms of this section. * * * ”

Gifts to Medical Education.

The general average of intellectual standards grows higher all the time among civilized people and the opportunities for education continue to grow in proportion.

In the United States the standards have remained comparatively low because the system has had to grow and the public has been slow to appreciate the necessity of providing for higher education. The foundation of elementary schools has been consistently laid with larger and larger usefulness until the network of these units throughout the country has made for a strong average of education if not a high one.

The college and the university have together filled their own place, of course, but for so many years these have depended upon private beneficence that the limitations in their usefulness have been a matter of unquestioned remark. In the case of certain universities, the availability of unusual fortunes has created wonderful opportunities in education and in such the higher standards are maintained. Technical schools have come into existence as the

exponent of single bequests for special education, and there are institutions both part of and apart from universities proper, which train men to the better knowledge of the scientific problems of the day.

In the economical questions which have come as natural outgrowths of advancing civilization, the public health is among the most vital and the relation of the people to this question is great. Notwithstanding this fact, the more practical, commercial interests in scientific matters have received not only first, but overwhelmingly significant consideration. Closely parallel with the general question of public health and all that it implies, is the matter of medical education, on which the proper preservation of the public health has, until now, depended. To this small general interest formerly attached. Medical schools grew out of the desire on the one hand of those who wanted to be taught and on the other of those who wanted to be teachers. In this country the medical colleges, independent of university relation, far outnumbered those having such an affiliation, and the result was a constantly increasing lot of proprietary schools, many having little excuse for their existence.

With time all this has changed—the friction of a natural competition compelled higher standards, and these in turn demanded the necessary funds; the constant improvements in scientific methods and the rapid advances in research added further obligations until the comparison between first grade and lower grade teaching colleges made the last to suffer. Here and there the State has stepped in to meet the requirements of modern medical teaching, but so rarely has this been the case that the instances are almost notable. The public, however, has kept some pace with the general intellectual standard, and now and then a philanthropist has helped the cause.

A small proportion of the medical colleges in the United States have thus been able to disregard the burden of dependency upon students' fees alone, and have reached out for a better and higher training of medical men. Institutes of research have come into existence in connection with the routine of teaching, and the modern student in medicine is afforded the chance in some places of carrying into his career more than a simple license to heal the sick.

As exigential in medical education within the past thirty years, New York, Philadelphia, New Orleans and Chicago have realized the important necessity of providing teaching institutions for physicians who had no advantages such as the best medical schools of to-day afford, and in these cities there have been developed, mostly through the gratuitous services of physicians themselves, large post-graduate schools, with teaching faculties covering all the fields of research in both laboratory and clinical investigation.

It is exceedingly gratifying at this time, therefore, to note the recent endowment of one of these schools, the New York Post-Graduate, the oldest of the lot, with the munificent sum of \$2,000,-000 donated by will of the late Frederick Cooper Hewitt, of Oswego, New York.

Such a sum of money will permit the institution benefited to carry out the highest ideals of post-graduate education, and should place this already famous school in a dignified position, second to none of this kind.

The New Orleans Polyclinic, now the Post-Graduate Department of the Tulane University of Louisiana, in the medical division, is only about five years younger than the New York school, and its usefulness has been attested by hundreds of physicians throughout the South who have taken advantage of its opportunities. Its work has been accomplished modestly and successfully, purely through the efforts of its faculty and without any recognition from the world of philanthropy. It, however, must share with the New York Post-Graduate School the glory which Mr. Hewitt's bequest has dignified as it has recognized post-graduate instruction.

Abstracts, Extracts and Miscellany.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

THE HEMOSTATIC PROPERTIES OF HYDROGEN PEROXIDE.—As a hemostatic hydrogen peroxide is most useful in controlling that form of hemorrhage known as "parenchymatous," when every little arteriole and capillary is copiously pouring out blood. Under these

circumstances, says McKenzie, the ten-volume solution of the liquid applied by means of swabs will dry up the bleeding surface with almost magical rapidity. This action reminds one of the hemostatic action of hot water, but the manner in which the two substances act is different. Hot water stimulates the muscular tissues of the vessels to contract, while hydrogen peroxide induces hemostasis by causing a rapid formation of fibrin in the mouths of the several vascular channels.

Hydrogen peroxide is, of course, easier to handle than hot water, and it is free from the risk of burning the parts.

While H_2O_2 may be used as hemostatic under almost any circumstances, it is specially relied upon in bone operations like the radical mastoid when free oozing from the osseous wound prevents the all-important continual inspection of the depths of the cavity. It is also of the greatest service in the surgery of the nose, where operations are liable to be accompanied and followed by an amount of hemorrhage not only inconvenient, but even at times dangerous.

In epistaxis also, which, it will be remembered, is usually due to the rupture of a small vessel low down in the anterior part of the nasal septum, hydrogen peroxide applied to the bleeding area on a tampon will suffice in most cases to bring the hemorrhage to a stand-still. Of other varieties of hemorrhages which have been successfully combated by this remedy, we may mention uterine hemorrhage, in which it has been found that H_2O_2 solution injected into the interior of the uterus, or applied on strips of gauze, is sufficient to lead to a cessation of the bleeding.

On the other hand, too much should not be expected of it. For example, it is highly improbable that internal hemorrhage, from the stomach or bowels, for instance, can be controlled by peroxide of hydrogen, because the solution must undergo decomposition long before it reaches a bleeding spot so remote. (Dan McKenzie, M. D., C. M. *The Hospital*, April 4, 1908.)

J. A. S.

IN DYSENTERY.—Try small injections of ice water into the rectum for the relief of tenesmus and preventing the frequent small movements.

J. A. S.

ACUTE BRONCHITIS.—“Bronchitis is not one disease, but a catarrh or bronchial inflammation of various kinds, like sore-throat or pleurisy, according as cold, gout, influenza, tubercle, measles,

pollen, etc., is the efficient cause at work; and it is also a different disease in different subjects.

Appreciating this position, we find that the first etiological indication is to deal with the cause directly. Cold is, of course, removed by means of a warm room (a temperature of 60° to 65° F, day and night), a tent bed, and inhalation of warm vapors. Gout, a very common cause of bronchitis, calls for a smart mercurial and saline purge, low diet, removal of stimulants and the employment of an alkaline iodide mixture at short intervals. Influenza and measles will be respectively treated on the most approved system. If the case be mild, whether due to weather, locality or season (hay-fever), the patient had better be sent away at once to a suitable climate.

The second etiological indication is to deal with any kind of debility, delicacy or disease of which the patient may be also the subject, and which has laid him open to the bronchitis; emphysema, tuberculosis, cardiac or renal disease, and the other morbid conditions which we have enumerated.

It is not only theoretically correct to remember these as being contributory circumstances; it is found practically that when they are present the patient suffers more severely, is in greater danger, and is more liable to relapse of the bronchitis, which tax our resources very heavily."—J. Mitchell Bruce, M. A., M. D., F. R. C. P. J. A. S.

THE PRINCIPLES OF TREATMENT FOR ACUTE BRONCHITIS.—

R	Tincturæ belladonnæ foliorum.....	f 3ss.
	Acid hydrocyanici diluti.....	M xxiv.
	Syrupi ipecacuanhæ	3ii
	Spiritus chloroformi	3ii
	Potassii citratis	3ii
	Syrupi lactucarii	f 3i
	Aquæ	q. s. ad. f 3iii

M. et Sig: Teaspoonful in water every two hours. Indication.
—Used in early stage with excessive cough.

R	Syrupi ipecacuanhæ	f. 3iv.
	Potassii citratis	3ii
	Syrupi limonis	f. 3iv
	Aquæ	q. s. ad. f. 3iii

Et Sig: Teaspoonful every four hours.

Indications.—Used in early stage to establish secretion.

Heroin hydrochloridi, codeinæ sulphatis or morphinæ sulphatis may be used if cough is excessive and prevents sleep.

℞ Pulveris ipecacuanhæ et opii.....gr. x.

Pone in capsules No.....iv.

Sig: Take the capsules upon going to bed, also lemonade with hot whiskey.

Indications.—Used in earliest stage of onset. To be followed by

℞ Tincturæ aconitif. 3ss.

Spiritus aetheris nitrosif. 3ii.

Potassii citratis3i.

Syrupif. 3i.

Liquoris potassii citratis.....q. s. ad f. 3ii.

M. et Sig: Teaspoonful every hour.

Indications.—Used in conjunction with preceding prescription to abort attack. For adult.

℞ Syrupi ipecacunhæf. 3ii.

Sig.—Teaspoonful every fifteen minutes until free emesis.

Indication.—In young children with suffocation from unexpelled secretion.

℞ Apomorphinæ hydrochloridigr. ss.

Acidi hydrochlorici dilutigtt. x.

Syrupif. 3iv.

Aqua menthæ viridisq. s. ad f. 3i.

Misce.

Sig.—Half to one teaspoonful every hour.

Indications.—Used in acute bronchitis of children when cough is hard and dry.

J. A. S.

Department of Nervous and Mental Diseases.

In Charge of DRs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

SERUM DIAGNOSIS OF SYPHILIS. (F. Plant of Munich.—*Serodiagnostik der Syphilis*.) (*Zentralbl. f. Nervenh. u. Psych., Ht. 8, 1908.*)

In the hemolytic experiment with the original technic of Wassermann (who employed watery extract of syphilitic organs as antigen), the positive reaction of the blood serum in undoubted cases

of syphilis has been present in 80-90 per cent. The reaction is specific, and is never present in a non-syphilitic individual; it enables us to diagnose the constitutional disorder, but not the organ affected. Examination of the cerebro-spinal fluid by this method sometimes enables us to make a diagnosis of the organ affected.

In twenty-five cases of syphilis, without involvement of the central nervous system, the author never found an anti-body in the cerebro-spinal fluid, while the serum, as a rule, gave a positive reaction. Even in actual syphilis of the central nervous system the cerebro-spinal fluid is very frequently free from syphilitic antibodies. On the other hand, in all but one of ninety-five cases of general paralysis examined by the author, the cerebro-spinal fluid gave a positive result; the serum, in every case of general paralysis examined, gave a positive reaction. In cases of cerebral syphilis the serum was usually positive, the cerebro-spinal fluid usually negative; in tabes the cerebro-spinal fluid gave a positive reaction in 70-80 per cent of the cases. The author emphasises the value of the method as an aid in separating from other groups those cases of congenital or early acquired mental enfeeblement which arise on a syphilitic basis; it may also help in the differentiation of arterio-sclerosis on a syphilitic basis from that with different etiology.

As to the nature of the antigen, views have considerably changed. Wassermann and his collaborators observed the specific interference with hemolysis only with extract of a syphilitic organ; Marie and Levaditi observed the same phenomena sometimes with extract of normal liver in concentrated solution, and the author confirms their results. It was then found that the antigen principle could be extracted with alcohol, and that here, too, certain normal organs would serve the purpose. The antigen, therefore, seemed to belong, not to the albumin group, but to the lipid substances; Porges accordingly substituted lecithin for organic extract in the hemolytic experiment, and in some cases obtained positive results.

Various attempts have been made to arrive at a simpler technic of serum diagnosis by means of precipitation. For this purpose Porges employed equal quantities (2 c. cm.) of a 2 per cent suspension of lecithin in 5 per cent carbolic normal saline solution

and of syphilitic sera. The results were positive, but by no means absolutely specific.

The author sums up the various methods and their various advantages.

A. Method of Binding of Complement.

1. The original method of Wassermann, Neisser and Buck, of binding complement by means of a watery extract of a syphilitic organ is even to-day the most reliable.

2. One only rarely finds watery extracts of non-syphilitic organs which have a specific action in hindering hemolysis, and these extracts are of less value than the afore-mentioned.

3. The alcoholic extracts of syphilitic and normal organs give a reaction which is specific for syphilis, but not with the same regularity or intensity as the first-mentioned.

4. Lecithin cannot be recommended as a substitute for extract of a syphilitic organ in the hemolytic experiment.

B. Precipitation Method.

1. Fornet's method is of no use.

2. The phenomenon observed by Michaelis, that precipitation occurred on mixing watery and syphilitic extracts with sera, is of little practical use, as it is of rare occurrence.

3. The method of Porges-Meier, who employed lecithin, is not sufficiently specific to be of much practical use.

4. The phenomenon observed by Klausner (precipitation of globulin on mixing syphilitic sera with distilled water) is not sufficiently specific for syphilis.

VAN W.

ON REGENERATION IN THE PERIPHERAL SEGMENT OF A NERVE PERMANENTLY SEPARATED FROM ITS CENTRE. (*Zur Frage der Regeneration in einem dauernd von seinem Zentrum abgetrennten peripherischen Nervenstumpf*.—A. Margulies of Prague, *Virch. Arch.*, Bd. 191, Hft. 1, January, 1908.)

The author comes to the following conclusions: 1. After section of a peripheral nerve definite degenerative changes occur in the distal segment; the axis-cylinder and medullary sheath completely disappear. 2. The cells of Schwann increase in size and number, and form a new specific fibrous tissue. 3. The nerve remains in this incomplete condition, if separation from the centre is permanent. 4. If its connection with the centre is restored, it becomes differentiated into a structurally complete nerve with

axis-cylinder and medullary sheath. 5. Autogenous regeneration, i. e., the formation of complete nerves, does not occur in the distal segment in the grown animal if the division of the nerve is permanent. 6. Every regeneration of nerve is an autonomous process of growth in so far as the anatomical basis of the nerve is furnished by the cells of Schwann.

VAN W.

Miscellany.

MEDICAL TREATMENT OF HEMORRHOIDS.—In hemorrhoids, surgical intervention is required only in grave cases; but in the majority of cases the piles only need a treatment directed against the congestive phenomena.

In order to avoid these congestive accidents, we should, first of all, endeavor to correct the constipation by an appropriate diet, massage, and the judicious use of laxatives, while avoiding drastic purgatives, particularly aloes, which increases the congestion of the pelvic organs. Warm enemas daily (45° c. to 55° c.) or compresses moistened with hot water, will relieve the congestion and pain. On the other hand, an ice bag, wrapped in flannel, will also give relief.

In addition, an ointment or suppository containing stovain will give prompt relief. The following formulas have been found useful: (1- \mathcal{R} Stovain, 4 grains, sol. adrenalin (1 to 1000), 30 drops, lanolin and vaselin of each, 150 grains. (2) Stovain, 1 gram, extract of rhatany, 2 grams, ung. petrolei, 50 grams. (3) For internal hemorrhoids: \mathcal{R} Stovain, 1-3 grain, ext. belladonna, $\frac{1}{2}$ grain, Cacao butter, q. s. to make one suppository.—*La Habana Medica.*

A. M'S.

ATOXYL IN MALARIA.—Dr. Gennaro Fusco, of Naples, reports two cases of acute malarial toxemia successfully treated with atoxyl. This remedy, containing about 24 per cent of arsenic, has been used in trypanosomiasis, with good effect. Laveran and Mesnil used it in the trypanosomiasis of the cat, the rat, and dogs, but the cure was transitory. Atoxyl was first employed experimentally in trypanosomiasis by Dr. W. Thomas, of Liverpool, in 1905. Robert Koch instituted systematic researches in Africa with atoxyl in sleeping-sickness; soon after the first injection the trypanosomes diminished rapidly in the juice of the lymphatic glands, and

they disappeared completely at the end of ten days. Uhlenhuth, Hoffman, and Hoscher used atoxyl in the treatment of syphilis; and Lassar, following the same lines, looks upon atoxyl as almost the specific against syphilis.

Fusco's first case of malaria was a woman, aged 35 years, a peasant, suffering from a quotidian fever that had resisted hypodermic quinine medication. He gave a hypodermic injection of seven minims of a ten per cent solution of atoxyl, which was repeated the following day. The effect was prompt; all malarial symptoms erased. The second case was a girl of nine years; the third case a man of thirty-two. The same treatment was employed, with equally good results. The atoxyl seems to possess a specific action on the plasmodium, and succeeds where quinine fails.—*Gazette des Hopitaux*.

A. M'S.

METHYLEN BLUE FOR FISSURED NIPPLES.—For several years Dr. Dresch, of Aix-les-Thermes, has employed a three per cent solution of methylen blue as a topical application for the cure and prevention of fissure of the nipples. Here is his method of procedure: He cleanses the infant's mouth and the ends of the nipples with a lukewarm, two per cent solution of bicarbonate of soda. He then swabs the nipples with the solution of methylen blue. It is known that methylen blue is a mild anesthetic, and that it promotes keratinization, which is a very important point in an organ subjected to constant maceration by saliva and milk. When the nipples are treated as above, the child nurses without the least inconvenience or disgust. Its mouth is smeared with blue, but the urine is not sufficiently altered to color the diaper. Eight or ten days of treatment are sufficient. It is necessary to make the application immediately after nursing, when the nipple is at its maximum of erectility.—(*Gaz. des Sciences Med. de Bordeaux*.—*Gazette des Hopitaux*.

A. M'S.

BOSTON MEDICAL NOTES.

To the internist, Boston presents many advantages over other American cities, as it is here that internal medicine is accorded the dignity to which its place in the art of medicine entitles it.

My introduction to the medical circle of Boston was made one year ago, when Joslin, Pratt, Hewes, Christian, Cabot, and others courteously made the way easy for me to get a good insight of the excellent medical work being accomplished by the best medical men

of the Hub. This year again allowed me to acquaint myself further with medical Boston.

Harvard Medical School is the center of medical activity in Boston. This school comprises a group of five white granite buildings, the most magnificent occupied by any medical college in the world. The location is ideal. The interior management, i. e., library and lecture halls, is admirable; the laboratories are ample and modern, and provisions are made for any competent and trustworthy worker to conduct his researches. It seems to me that the very dignity of the buildings would act as inspiration to bring out the best in a man working within their walls. The high standard which the Harvard medical school maintains is too well known to be dwelt upon here, and its influence is made apparent in the medical men one meets in Boston. Boston is rich in hospitals, the city itself giving \$500,000 annually towards their support.

The Massachusetts's General Hospital was established in 1811. It is said that in its historic dome room, the anesthetic property of ether was discovered by Dr. Morton. The name of Drs. Oliver Wendell Holmes, J. Mason Warren, and Henry J. Bigelow are also associated with this room. This hospital is endowed, and further supported by donations. It is managed by a board of trustees which selects the superintendent, and which also appoints the visiting staff. The members composing this staff have entire charge of their respective departments. The internes are graduated physicians. The location of the hospital is central, and with the additions now being made to the grounds, sufficient room will be obtained for additional structures when needed. Though the hospital contains only 260 beds, yet much space is occupied by the buildings, as considerable floor room is given to the respective departments. For instance, the female medical clinic alone occupies as much floor space as the second floor of one of the out-clinic buildings of the Charity Hospital in New Orleans. Each medical clinic consists of several rooms, so that examination of several patients can be conducted simultaneously. The work of the visiting staff is facilitated by assistants who write case histories, and who make examinations of urine, blood, feces, stomach contents, etc. A laboratory for this purpose is convenient to every medical service. Patients in the out-clinics may have massage,

baths or other hydrotherapeutic measures upon written directions of the visiting physician. Careful case histories are taken, and accurate records are kept of examinations made, which are carefully indexed and filed. The orthopedic gymnasium in the Massachusetts General is the best I have seen.

The wards are large, well-ventilated, and clean in every particular. There are some pay beds, and patients are expected to pay when able; but when necessary beds are used for patients without considering the question of charge.

The number of typhoid cases seen in the wards is greater than with us.

Noticeable is the large number of sick which one sees in their beds out of doors, typhoid and pneumonia cases among them. They are rolled out in the morning (a special lift and roller being provided for the bed) and are kept out of doors all day. The cases of tuberculosis kept in the hospital, of whatever nature, live in tents on the grounds, where it is possible for them to do so.

In the out-clinic for tuberculous patients, I saw a number under treatment with tuberculin. It is claimed there that the best results obtained have been with the eye and gland cases. It might be remarked here that in Boston cotton-seed oil is prescribed quite extensively for the tuberculous poor for economic reasons. The pathological department is well-provided with proper laboratory facilities, and is efficiently conducted. Harvard practically controls the material afforded by this hospital for teaching purposes.

So far as I could perceive, with the exception of debatable routine, the Massachusetts General Hospital is ideally managed.

The Boston city hospital has ample grounds. Its several departments are well organized. Its good equipment, and its clean and well ventilated wards go far toward making this hospital notable among hospitals under municipal control in this country. The records are well kept, though not comparable, I think, with those of the Massachusetts General. In this hospital Dr. Elliot P. Joslin is hard at work arousing interest in the fight against typhoid fever, a condition which is more prevalent with them than with us. Dr. Joslin is pointing out the necessity of carefully scrutinizing typhoid cases after dismissal from the hospital. He has enlisted in his service Drs. Overlander and Graham, who are conducting the laboratory part of the work.

Here also, patients are kept out of doors when possible.

This hospital has 850 beds. It also conducts a well-attended out-clinic, where the visiting staff enjoys many privileges. The internes are all graduated physicians.

The Carney Hospital is situated in South Boston, and has about two hundred beds. It maintains a well-conducted out-clinic, but, as the patients come chiefly from the surrounding section, this clinic is not as well patronized as that of the Boston City Hospital, or the Massachusetts General Hospital. The management of the Carney Hospital is under the same order of Sisters of Charity as that connected with our Charity Hospital. The Sister superior has the power to appoint the physician in charge. At present, Dr. Christian, recently made full professor of medicine in Harvard, has been entrusted with the medical side of the work. The internes here also are graduated physicians.

This hospital is well-equipped and admirably conducted; careful histories are taken, and good records are kept. I noticed a considerable number of typhoid fever cases in the wards.

This institution is said to be non-sectarian in its service to the public.

The Boston Consumptives' Hospital is doing a great work among Boston's consumptive poor. It has district nurses, and conducts a day camp. In our crusade against tuberculosis at home, we can learn much from the excellent work being carried on in Boston.

In closing, I wish here to give expression of gratitude for the uniform courtesy accorded me by all the medical men it was my good fortune to meet during my two visits to Boston.

J. A. STORCK.

Medical News Items.

THE SOUTHERN MEDICAL ASSOCIATION will hold its second annual meeting in Atlanta, Ga., November 10, 11 and 12. An attractive program is promised and every effort on the part of the officers is being made to have a successful, as well as enthusiastic meeting.

This Association is officially recognized as the Gulf Branch of the

American Medical Association, and already numbers a large membership. The profession generally is invited to the Atlanta meeting, and anyone interested is urged to address the genial and energetic Secretary, Dr. Oscar Dowling, Shreveport, Louisiana.

The return fare to Atlanta will be reduced to one and one-third from all points east of the Mississippi River, and tickets will be on sale November 7, 8 and 9, good until November 14.—[New Orleans rate, \$20.05.]

FREE CLINIC OF ANTI-TUBERCULOSIS LEAGUE.—The League expects to open its free clinic at No. 1309 Tulane Avenue this month, and judging from the great amount of good done by these clinics elsewhere, it is hoped to educate the people up to the importance of preventing the spread of the Great White Plague. Pennsylvania has appropriated a million dollars and has 800 trained men in different parts of the State to give advice to consumptives, and the number of cases last year was 3,000 less than the previous year.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will hold its thirty-fourth annual meeting at the Seelbach Hotel, in Louisville, on October 13, 14, 15, 1908, under the presidency of Dr. Arthur R. Elliott, of Chicago. An interesting program is announced.

FOURTH OF JULY STATISTICS.—According to the *Journal of the A. M. A.*, there were 5,623 men, women and children killed or wounded last Fourth of July; there were 76 cases of tetanus.

ETHER ANNIVERSARY.—The Massachusetts General Hospital, in Boston, will celebrate the sixty-second anniversary of the discovery of ether on October 16. Prof. William H. Welch, of Johns Hopkins, will deliver the address of the occasion.

NEW STATE BOARD OF HEALTH.—President, Dr. Harvey Dillon, Sabine; other members: Dr. B. A. Ledbetter, Orleans; Dr. H. Oechsner, Orleans; Dr. B. W. Smith, St Mary; Dr. T. T. Tarlton, St. Landry; Dr. S. D. Porter, Avoyelles; Dr. G. W. Gaines, Madison.

CATAHOULA PARISH MEDICAL SOCIETY.—At the August meeting of the Catahoula Parish Medical Society, Dr. Weden Smith was elected President, and Dr. H. S. Hollomen, Secretary and Treasurer. This Society, while small in numbers, is strong in enthusiasm, they having recently bought a fine microscope and accessories, and are fitting up a small and complete laboratory which is open to all members of the Society at all times. This laboratory also

serves as a meeting place and home for the Society at Jonesville. Regular meetings on last Saturday in each month. All physicians in good standing are cordially invited.

THE ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS, PHILADELPHIA, has been awarded to Dr. William T. Shoemaker, of Philadelphia, for an essay on "Retinitis Pigmentosa."

DESERVED NOTICE.—The following paragraph, clipped from the address delivered by Dr. R. Matas as Chairman of the Section of Surgery at the last meeting of the A. M. A., is so true and so well said in referring to the late Dr. Senn, that we cannot refrain from reproducing it:

"*Vir præclarus et ornatus.*—Senn, the incomparable teacher, the peerless clinician, the scrutinizing pathologist, the perennial investigator, the faithful historian and charming raconteur; the world traveler, the philosopher, soldier, patriot and organizer; Senn, the philanthropist, the citizen of Chicago and of the world; Senn, one of the greatest masters of our art—will remain an imperishable name in the great pantheon of American surgery."

NEW INSTITUTION FOR INVESTIGATION OF TUBERCULOSIS AT BERLIN.—The Emperor of Germany has given \$24,000 to the Robert Koch Foundation, an institution to be opened at Berlin, for investigations in tuberculosis. The gift completes the \$100,000 which Andrew Carnegie stipulated should be subscribed before his promise of \$1,000,000 should become available.

NOTICE—LECTURES UPON THE DISEASES OF THE DUCTLESS GLANDS.—Dr. George Dock, Professor of Medicine in the Tulane University, will give a course of lectures on the diseases of the ductless glands during the ensuing college year. The lectures will be based upon the latest researches, and should be interesting not only to the undergraduate student, but also to members of the medical profession, who will be cordially welcome. The course embraces the Diseases of the Thyroid Gland, including the Goitres, Exophthalmic Goitre, Myxedema and Cretinism (including Dwarfism) and Infantilism, Diseases of the Parathyroid Glands (Tetany), Thymus, Pituitary Gland (including Giantism), Akromegaly, and the Supra-renals, including Addison's Disease, with some consideration of the other ductless glands. It will be fully illustrated by lantern slides, and as far as possible by actual cases. Members of the profession who have patients suitable for demon-

stration will confer a favor by communicating with Dr. Dock, at the Hutchinson Memorial. The course will begin about the middle of October, on days and hours to be announced duly. Information may be had at the Hutchinson Memorial, 1551 Canal street.

THE HOMEOPATHIC FREE CLINIC has removed from its location at Canal and Franklin to more commodious quarters at No. 1224 N. Claiborne. The clinic will be open daily except Sunday, from 8 to 11, including a special eye, ear, nose and throat clinic. There will be seven physicians in attendance. Dr. R. S. Moth will be resident physician.

AUTOMOBILE ACCIDENTS IN MASSACHUSETTS.—Last year 62 persons were killed and 648 injured by automobiles in Massachusetts.

PERSONALS: Mr. Samuel W. Fairchild, of New York, has been honored with the Degree of Master of Pharmacy by the Philadelphia Pharmacy College.

Dr. R. F. Harrell, of Alexandria, La., has returned after spending the summer in the Hospitals in London, England.

Dr. A. A. Pray has returned to the city after spending two months in the White Mountains.

Dr. W. H. Dalrymple, of the Louisiana State University at Baton Rouge, was elected President of the Interstate Association of Live Stock Sanitary Boards at the final session of the national convention held in Washington, on September 16.

Dr. E. D. Friedrichs is in Europe visiting the clinics.

Dr. and Mrs. C. J. Miller are in Europe.

Dr. J. S. Dempsey has returned from a three months' visit to Europe.

Dr. J. A. Storck has returned from a trip to Boston.

Dr. S. Paul Klotz, of Summit, Miss., has opened an office in this city at No. 124 Baronne street.

Dr. J. A. Danna is on vacation in Chicago.

Dr. J. Ashton Blanchard has resigned from the office of President of the Shreveport Board of Health, and Dr. A. S. Reisor has been appointed in his place.

Dr. J. F. Pigott has been elected President of the Board of Health at Covington, La.

Dr. Fred J. Mayer read a paper before the National Veterinary Association, in Philadelphia, last month.

Dr. Edward Harper, a local homeopath, was appointed Chairman

of the Bureau of Clinical Medicine and Pathology for the 1909 meeting of the American Institute of Homeopathy, which meets at Detroit, Michigan, next June.

Dr. J. N. Roussel has offered his services free for examination of the school children with regard to skin diseases.

Dr. Oscar Dowling has been appointed a member of the Game Commission.

Dr. Brumby, State Health Officer of Texas, saw a man wash his teeth and expectorate in the basin while on a sleeping car and had him arrested. The judge acquitted the man who threatened suit against the doctor and the Pullman Company.—Exch.

Dr. Homer Dupuy has returned from the East where he spent a month visiting the clinics.

Dr. A. A. Abbott, of this city, attended the National Association of Retail Druggists' meeting in Atlantic City last month.

Prof. A. L. Metz has returned from a vacation in Hot Springs, Ark.

Dr. E. F. Bacon will return in October much benefitted by his Colorado vacation.

Dr. W. P. Chamberlain has been designated to conduct the examination of applicants for appointment as first lieutenants in the medical reserve corps at New Orleans.

Dr. C. A. Gaudet spent his vacation in Canada and New York.

Dr. King Logan went to Virginia for his summer outing.

Dr. E. J. Richard spent two months at St. Joseph's Hospital, Chicago

Dr. J. J. Wymer has been appointed Assistant Surgeon in the Louisiana Naval Militia.

Dr. Emeric de Nux has moved from Marksville to Bunkie; Dr. H. J. Smisson from Dothan, Ala., to Madrid; Dr. S. G. Hines from Hammond to Grayson, La., and Dr. R. M. Colmore from Schriever, La., to Havana, Cuba.

VISITING DOCTORS: During the past month the following doctors have paid New Orleans a visit: Dr. Glendower Owen, of Whitecastle, La.; Dr. L. Anderson, of Moss Point, Miss.; Dr. J. J. Ayo, of Bowie, La.; Dr. Oscar Dowling, of Shreveport; Dr. S. E. Hale, of Crowley, La., and Dr. L. B. Austin, of Vicksburg, Miss.

MARRIED: Dr. Cora M. Bass, of New Orleans, and Mr. A. A. Pigford, of Meridian, Miss., were married on August 26. Dr. Bass

will hereafter practice her profession at Meridian, her husband's home.

Dr. Ruffin Cole Claiborne and Miss Eloise Munford were married September 22, at New Harmony, Indiana.

DIED: On September 10, 1908, Dr. James F. Code, died at the age of 34. At the time of his death the doctor was a member of the Orleans Parish Medical Society. He was a graduate of Tulane in both the medical and pharmaceutical departments, and held the Chair of Pharmacy in the New Orleans College of Pharmacy.

Dr. William Greer Armstrong died in New Orleans September 2 at the age of 39 after an acute attack of pneumonia. Dr. Armstrong was a member of the State Board of Health at the time of his death, and one of the most prominent of New Orleans' practitioners. As a graduate of the Tulane University, from both the Academic and Medical Departments, and as a graduate from the Charity Hospital and as Assistant House Surgeon at the Touro Infirmary, Dr. Armstrong was identified thoroughly with New Orleans. His demise leaves a sorrowing clientelle and a bereaved wife to survive him. The JOURNAL joins his many friends in sincere condolence to his family.

TULANE NOTES.

The Medical Department (Undergraduate) opens October 1, inaugurating the new arrangement of instruction with the first two years in the new Richardson Memorial and Richardson Chemistry building on the University campus. The chemistry divisions in the academic and medical departments, as well as the new department of pharmacy will be domiciled in the chemistry building, the capacity of which has been more than doubled by the additions and alterations completed during the past summer. The department will have at its head Prof. Metz, with Profs. Caldwell, Wilkinson, Associate Prof. Brown and their assistants, making for the first time at Tulane a complete department of chemistry and of pharmacy, with all modern divisions, including the requirements for instruction in Pure Food and Drug analysis.

Fully equipped laboratories of physiology, pharmacology, histology and anatomy will occupy the Richardson Memorial, while the new museum of anatomy, arranged on the same floor, and in

conjunction with the laboratory of anatomy, will be a valuable aid to the study of this branch. Prof. Emeritus Edmond Souchon, the Curator of this museum, plans a complete set of specimens in this museum as a labor of love for Tulane.

Besides the teaching staff in the chemistry department, already named, the members of the faculty assigned to the up-town division of the course will include Prof. J. T. Halsey, professor of pharmacology, materia medica, therapeutics; Prof. Gustav Mann, the new professor of physiology, who will also have charge of the laboratory of histology; Acting Professor Henry Bayon, in charge of the department of anatomy; Dr. John Smyth, in charge of the laboratories of minor surgery. Besides these general divisions of the work, lecturers and assistants will occupy the teaching hours. The subject of hygiene, heretofore a part of another chair, has been separated and for the coming courses will be taught by groups of lecturers from the faculty, each teaching the divisions of hygiene as it applies to his branch or subject.

The laboratory hours in the first two years will be materially increased, while the total of didactic teaching will not suffer.

The new medical dormitory has been completed and will be occupied by medical students the coming session. The accommodation is not sufficient for all of the students of the first two years, but the success of this feature of the medical students' life on the campus should encourage the erection of more dormitories by those philanthropically inclined. The Hutchinson Memorial, on Canal street (formerly Richardson Memorial), will, during the coming session and hereafter, serve the classes in the last two years of the medical course.

For the present, laboratories in pathology, surgery, bacteriology, clinical medicine, etc., will be employed for all classes, while the clinic work at the Charity Hospital will be continued as before.

During the next few months the plans will be completed for the remodeling of the interior of this building for the real purpose of increased teaching facilities. Out-door clinics, therapeutic laboratories and appliances, out-door obstetric services, surgical laboratories as well as added laboratory facilities will be considered.

This session will inaugurate the regime of a materially increased teaching faculty, while it will chronicle the loss of Prof. Chaillé and Prof. Elliott from the list. The department of pathology and

bacteriology will be in charge of Dr. O. L. Pothier, long associated with this division as the demonstrator in the laboratory. The laboratory of clinical medicine will be under the direct charge of Prof. Geo. Dock, the new professor in medicine, and Drs. Bass and Lyons as assistants in charge.

In this connection Dr. Dock announces a series of lectures upon the "Diseases of the Ductless Glands," not as a part of the regular lecture course, but open to the profession generally. This series of lectures is a part of a generally conceived plan to further systematic educational lectures under Tulane auspices.

Among the notes of the coming year we may remark the promotion of Dr. J. B. Guthrie to the position of associate professor on clinical medicine and therapeutics; the promotion of Dr. Geo. S. Brown to be associate professor on pharmacy.

In a recent tabulation of medical colleges and their standing before State Examining Boards, Tulane ranks eighth with a total of 5.9 per cent of failures among 476 graduates of all years occurring between 1903 and 1907, inclusive. The colleges having smaller percentages than Tulane were: Cornell, 1.2; Johns Hopkins, 1.4; Harvard, 2.1; Northwestern, 3.5; University of Pennsylvania, 3.88; College of P. S., New York, 3.90; University of Buffalo, 5.5.

NEW PROFESSORS: The two new professors at Tulane, Prof. Geo. Dock and Prof. Gustav Mann, have been announced already by the JOURNAL, but it may not be out of place to present a brief on their medical careers, especially as teachers.

Dr. George Dock graduated from the medical department, University of Pennsylvania, in 1884; interne in St. Mary's Hospital, Philadelphia, for a year, under Drs. W. W. Keen, John B. Roberts, J. Ewing Mears and others; studied in Leipsic, Berlin, Vienna and Frankfort from 1885 to 1887. From 1887 to 1888 he was assistant in charge of the laboratory of clinical medicine in the University of Pennsylvania, under Drs. William Osler and John H. Musser. At the same time he was also physician to the medical dispensaries of the University Hospital and St. Agnes' Hospital, in the former working in connection with Dr. William Pepper. In Philadelphia Dr. Dock began investigations in malaria, with Osler, who was one of the earliest to follow the discoveries of Laveran, and he also studied typhoid fever. In 1888 he became Pro-

fessor of Pathology and Clinical Medicine in the Galveston Medical School, where he made studies in malaria, dysentery, typhoid fever and other diseases, often referred to in articles and textbooks on those subjects. In 1891 he was appointed Professor of Medicine in the University of Michigan, and made important advances in the methods of teaching in that celebrated school, such as instituting practical courses in various departments of internal medicine, and doing away with repetition of lectures and establishing the promotion of the reading and recitation method, the diagnostic and the therapeutic clinic, and expanding the work in both wards and hospital laboratories. The effects of the change are attested by the practical and at the same time scientific work of graduates of the school generally. Dr. Dock has always been an investigator, making many contributions to all divisions of medicine, especially in diseases of the blood, goitre, exophthalmic goitre and other diseases of the ductless glands, protozoan diseases, etc. He has contributed many articles to medical periodicals and encyclopedias, and edited the volume on the Heart in the American issue of Nothnagel's System. He is considered an authority on vaccination, and was selected to write the chapter on that subject in Osler's Modern Medicine. In 1898 he spent some time in army camps at Chickamauga, Knoxville, and elsewhere, investigating camp fevers for the government. Dr. Dock is a member of many medical societies and of the American Association for the Advancement of Sciences, and of the scientific society of Sigma Xi. Was delegate to the Congress *für innere Medezin*, held in Berlin, and the International Medical Congress at Moscow, in 1897; at the latter was one of the vice-presidents of the section on medicine. In 1901 was honorary vice-president of the International Congress on Tuberculosis, in London, and is a member of the International Congress on Tuberculosis just held in Washington in September, being also a member of the committee on prizes and also of the Hodgkins Prize of the Smithsonian Institute.

He is to give the oration on Medicine at the meeting of the Mississippi Valley Medical Association, to be held in Louisville in October.

He has held various positions in the American Medical Association, as secretary and chairman of the section on medicine, and as orator in medicine; is chairman of the Editorial Board of the

Archives of Internal Medicine. Dr. Dock received the honorary degree of A. M. at Harvard University in 1895, and the Sc. D. at Pennsylvania in 1904, as a recognition of his distinguished work in medicine; he gave the address on Pathology at the dedication of the great laboratories of the medical college of the University of Pennsylvania.

Dr. Dock comes to New Orleans as no stranger for his stay in Galveston made him many friends in and out of the profession, and the fact that his accomplished wife is a Southern woman, native of Galveston, should give both a warm welcome to New Orleans.

DR. GUSTAV MANN, the new Professor of Physiology, comes to Tulane with a distinguished record. Born in 1864, in East India, Dr. Mann was early educated in Germany, graduating from the "Gymnasium" at Goettingen. From there he went to Edinburgh, attaining his M. B. and C. M. degrees in 1892, finally taking the M. D. degree in 1894 from that famous school. In 1899 he added the degree of B. Sc. at Oxford University.

While interested in biologic problems in plant and animal life, Dr. Mann has gradually evolved both a specialty and a reputation for work in physiology and in histology, in teaching which branches he was for many years placed at Oxford, leaving the position at that institution to accept the present professorship in Tulane. Such men as Osler, Sherrington, Ehrlich, Jacques Loeb and others have endorsed Prof. Mann with the most unqualified commendations. His literary relations to medicine may be judged by his numerous contributions to the field of physiology, histology, botany, etc.

His most pretentious work has appeared in his two publications of "Physiological Histology" and "Chemistry of the Proteids," both generally acknowledged classics in their field.

With the accession of Prof. Mann, Tulane adds to her professional faculty one who has been described as 'second to none' among the physiologists in the United States.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

The Bacteriology of Diphtheria. By F. LOEFFLER, M.D., LL.D., ARTHUR NEWSHOLME, M.D., F.R.C.P.; F. B. MALLORY, M.A., M.D.; G. S. GRAHAM-SMITH, M.A., M.D., D.Ph.; GEORGE DEAN, M.D.; WILLIAM B. PARK, M.D.; CHARLES F. BOLDMAN, M.D. Edited by G. H. F. NUTTALL, M.D., Ph.D., Sc.D., F.R.S., and G. S. GRAHAM-SMITH, M.A., M.D., Cambridge, at the University Press. G. P. Putnam's Sons, New York

Adequate notice of this fine work would more fittingly be described as an "appreciation" than as a criticism. The book is a pean in a long fight against a formidable foe. It digests and summarizes the vast amount of work done in all lands from the time of Bretonneau down to our own times. It is a record of final achievement after a long and arduous struggle for mastery over a dread disease, and the book is in itself a faithful presentation of the subject from all standpoints. The appropriate presentation of the portraits and biographies of the laborers in the field of diphtheria commences the work, followed by an introductory section by Loeffler. In the conclusions of Newsholme regarding "Epidemiology," the questions of cycles, influence of climate, soil, etc., are brought out and the statistical evidence is adduced to show, contrary to generally received notions, that prolonged dry weather favors the extension of diphtheria rather than wet weather. Other points of notice are the deductions that the disease is continental rather than insular, and that diphtheria is rare in tropical climates and is not known to assume epidemic proportions in such. Mallory's chapter on "Pathology" is largely based on the experience and observations in 251 fatal cases in the Boston City Hospital and every organ affected by diphtheria is discussed.

Graham-Smith's contribution to the "Bacteriology" of diphtheria comprises nearly half of the entire work, and minutely discusses all phases of the subject, including elaborate detail in the field of experiment.

Other chapters on immunity, toxins, etc., and on mortality, and other pertinent and valuable topics complete this most excellent work.

The editors announce that the University Press contemplates the publication of like volumes dealing with the chief infective diseases, and it is to be hoped that the profession will recognize the effort sufficiently to encourage it as it deserves, by a generous endorsement. A. McS.

The Ready Reference Handbook of Diseases of the Skin. By GEORGE THOMAS JACKSON, M.D., Sixth Edition. Lea & Febiger, New York and Philadelphia.

Dr. Jackson has for so many years taught skin diseases that he knows the importance of presenting the subject practically and this he has accomplished in his text, which has been sufficiently appreciated to now demand a sixth edition. The arrangement of diseases in alphabetic order is

especially convenient for ready reference and the author has tried to make the introductory chapters marry well with this method. There is no pretense to an exhaustive treatise on skin diseases, but a "Ready Reference," and as such Dr. Jackson's book is one of the best of its kind.

DYER.

Beasley's Book of Prescriptions. Rewritten by E. W. LUCAS, F.I.C., F.C.S., with an introductory by Arthur Latham, M.A., M.D., F.R.C.P. Ninth Edition. P. Blakiston's Son & Co., Philadelphia.

This little book will always have an especial value to the busy practitioner who wishes a ready guide to the therapeutic indications of drugs. Here are presented the list of drugs, their indications, and the easiest compatibles with which they may be administered. An index is also given of the principal diseases where emergency information is needed and under the heading a list of remedies appears. The absence of discussion and of opinionative advice is a desirable feature of the work.

DYER.

The Diseases of Children. A Work for the Practising Physician. Edited by DR. M. PFLANDER, DR. A. SCHLOSSMANN. English Translation Edited by Henry L. K. Shaw, M.D., Linnæus La Fétra, M.D., with an introduction by L. EMMETT HOLT, M.D. In 4 vols. J. B. Lippincott Company, Philadelphia and London.

"No branch of medical science," says the introduction to this work, "has developed more rapidly during the past two decades than pediatrics; and it is to be doubted if there is any other which can point to such a record of achievements."

It needs only a running estimate of the matter contained in the four volumes of the work in review to attest the first commentary, at least. This work not only offers the contributions of a brilliant array of distinguished European authorities, but in the translations of the individual articles may be found a critique from the standpoint of our own distinguished pediatricists.

It would be impossible to consider in detail the material contained in so cyclopedic a work, but we may remark that up to the present time no presentation of the subject of Diseased Children has ever appeared in English which covers as much ground and with so thorough a standard of excellence in the most of the subjects discussed. The chemic side of the metabolism, the abstract theories in the questions of psychiatry, etc., may be beyond the average practitioner who buys the cover, but the array of useful articles for reference is vast and it is here such a work must find its place in the library of the student physician.

DYER.

Righthandedness and Lefthandedness, etc., by GEO. M. GOULD, M.D. J. B. Lippincott Company, Philadelphia and London.

This contribution to medical literature is a compilation by the author of a series of articles written by him in recent years and dealing with different phases of the subject discussed. Argumentative as well as practical theories are advanced and the *raison d'être* of lefthandedness as a functional fact is presented with a near insight that should forever dissuade the attempt to distort a natural habit. The discursive chapters on the

"Way of the Road," the keeping to the right of vehicles, etc., is interesting from many points of view, historical, anthropologic and by way of the study of customs. The versatile author has added one more to the debts the profession already owes him for his research in medical lore and philosophy.

DYER.

Publications Received.

J. B. LIPPINCOTT CO., Philadelphia and London, 1908.

Pain: Its Causation and Diagnostic Significance in Internal Diseases, by RUDOLPH SCHMIDT, M. D. Translated and Edited by KARL M. VOGEL, M.D., and HANS ZINSSER, A.M., M.D.

LEA AND FEBIGER, Philadelphia and New York, 1908.

The Principles and Practice of Gynecology, by E. C. DUDLEY, A. M., M. D. 5th Edition. Revised and Enlarged.

The Principles of Pathology, by J. GEORGE ADAMI, M.A., M.D., LL.D., Vol. I, *General Pathology.*

Diseases of the Skin, by GEORGE THOMAS JACKSON. 6th Edition. Revised.

W. B. SAUNDERS CO., Philadelphia and London, 1908.

Medical Gynecology, by SAMUEL WYLLIS BANDLER, M.D.

Pulmonary Tuberculosis and Its Complications, by SHERMAN G. BONNEY, M. D.

F. A. DAVIS CO., Philadelphia, 1908.

Consumption; How to Prevent It and How to Live With It, by N. S. DAVIS, A. M., M. D. 2nd Edition. Revised.

Health and Beauty, by JOHN V. SHOEMAKER, LL. D., M. D.

P. BLAKISTON'S SONS & COMPANY, Philadelphia, 1908.

Ophthalmic Surgery, by DR. JOSEF MELLER. The Translation Reviewed by WALTER L. PYLE, A. M., M. D.

G. P. PUTNAM'S SONS, New York and London, 1908.

Essentials of Dietetics In Health and Disease, by AMY ELIZABETH POPE and MARY L. CARPENTER.

MISCELLANEOUS.

Department of Commerce and Labor. Bulletin of the Bureau of Labor, No. 75, March, 1908. (Government Printing Office, Washington, 1908.)

Biennial Report of the Board of Control of the State Penitentiary of Louisiana.

Bulletin of the Pennsylvania State College, 1907-1908.

Annual Calendar of the McGill University, 1908-1909.

St. Louis Skin and Cancer Hospital. Second Annual Report, 1907,

Treasurer's Department. Public Health and Marine Hospital Service of the United States. "The Present Pandemic of Plague," by Assistant Sur-

geon General J. M. EAGER. (Government Printing Office, Washington D. C., 1908.)

G. Merck's Annual Reports—Complete Series—Vol. XXI, 1907. (Darmstadt.)

Supplement to the Sixty-fifth Annual Report of the Registrar-General of Births, Deaths and Marriages in England and Wales. Part II.

Industrial and Personal Hygiene. By GEORGE M. KOBER, M.D., LL.D. A Report of the Committee on Social Betterment. (Published by the President's Homes Commission, Washington, D. C., 1908.)

The Baby; Its Care and Development. By LEGRAND KERR, M.D. Published by Albert T. Huntington, Brooklyn, N. Y., 1908.)

New and Enlarged Edition The Mulum in Parvo Reference and Dose Book. By C. HENRI LEONARD, M. D. (Published by The Illustrated Medical Journal, Detroit.)

Price List of the Products of Sharp and Dohme.

Reprints.

Tuberculosis of the Tongue, With Report of a Case. By W. M. HARSHA, M. D.

Diagnosis of the Common Skin Diseases of Childhood. By W. B. BROWN, M.D.

Physiognomy. By BRYAN DE F. SHEEDY, M. D.

Mosquitoes and Their Relation to Leprosy in Hawaii. By DR. E. S. GOODHUE.

The Erythema Group of Skin Diseases. (2) Blastomycosis and Its Congeners, etc. By DR. A. W. BRAYTON.

Syphilis, Past and Present, etc. By NELSON D. BRAYTON, M. D.

General Pruritus. By ALFRED SCHALEK, M. D.

Discussion on Radio-Therapy by the Chicago Dermatological Society; (2) Zoster Arsenicalis; (2) Notes of a Case of Actinomycosis; (3) Observations on Pemphigus; (4) Notes on the Treatment of Lichen Planus. By JOSEPH ZEISLER, M.D.

The Chaille Jubilee; Also Annual Report of the Dean of the Medical Department of the Tulane University of Louisiana, May 20, 1908, and Address for Cornerstone of the New Richardson Memorial Building, May 19, 1908. By STANFORD E. CHAILLE, A.M., M.D., LL.D.

The Detection and Significance of Occult Blood in the Feces and Stomach Contents With Special Reference to the Adler's Benzidin Test; (2) A Simple Method of Obtaining Stomach Contents. By J. A. STORCK, M.D., M.Ph.

Purulent Pyelitis Treated by Lavage of the Renal Pelves, Report of Six Cases. By WINFIELD AYRES, M. D.

The Relation of Appendicitis to Gynecological Pelvic Diseases. By SAMUEL WYLLIS BANDLER, M.D.

Radio Active Baths in the Treatment of Malaria. By E. H. MARTIN, M.D.

Further Studies in the Treatment of Tuberculous Sinuses, Fistulous Tracts and Abscess Cavities. By EMIL G. BECK, M. D.

Extract from the Address of the President of the American Gynecological Society. (Part Pertaining to Anesthesia.) By DR. J. M. BALDY, President.

The Submerged Tonsil With Special Reference to Cervical Adenitis and Systemic Infections. By LEE M. HURD, M.D.

Treatment of Gastric Ulcer. By THEODORUS BAILEY, B.S., M.D.

Proprietary Medicines and Their Abuses; (2) *Professor F. Blochmann's Work on Accidental Vaccination;* (3) *Compulsory Vaccination, Antivaccination, and Organized Vaccination;* (4) *Printed Editions of the Rosa Anglica of John of Gaddesden;* (5) *Chylous Ascites and Chylous Pleurisy, in a case of Lymphocytoma Involving the Thoracic Duct;* (6) *Recent Advances in the Study of Heart Disease;* (7) *Medical Treatment of Cholelithiasis;* (8) *A Plea for Laparotomy Rather Than Paracentesis in Ascites;* (9) *The Alleged Dedication of Morgagni Recognizing Kinship to John Morgan;* (10) *A Case of Infantile Scurvy;* (11) *Methods, Value and Limitations of the Knowledge of the Gastric Contents;* (12) *Clinical Observations in Exophthalmic Goiter;* (13) *Abortion in Malarial Fever;* (14) *Gonorrhea of the Rectum;* (15) *Mitosis in Circulating Blood;* (16) *Prognosis: Its Theory and Practice;* (17) *Note on the Parasite of Quartan Malarial Fever and a Word on the Varities of the Malarial Parasites;* (18) *The Study of Pathology;* (19) *Physician and Patient;* (20) *Medical Considerations of Gastric Surgery.* By GEORGE DOCK, M.D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
FOR AUGUST, 1908.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	9	6	15
Intermittent Fever (Malarial Cachexia)	9	2	11
Smallpox.....			
Measles			
Scarlet Fever.....			
Whooping Cough.....	1	1	2
Diphtheria and Croup.....	5		5
Influenza			
Cholera Nostras.....			
Pyemia and Septicemia	3	1	4
Tuberculosis.....	33	36	69
Cancer.....	8	8	16
Rheumatism and Gout			
Diabetes	5		5
Alcoholism	2		2
Encephalitis and Meningitis.....	4	3	7
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	15	7	22
Paralysis	1	3	4
Convulsions of Infants	1	2	3
Other Diseases of Infancy	17	6	23
Tetanus	2	4	6
Other Nervous Diseases	3		3
Heart Diseases.....	38	27	60
Bronchitis	3		3
Pneumonia and Broncho-Pneumonia.....	7	9	19
Other Respiratory Diseases.....	1		1
Ulcer of Stomach.....			
Other Diseases of the Stomach	5	1	6
Diarrhea, Dysentery and Enteritis.....	24	16	40
Hernia, Intestinal Obstruction.....	2	1	3
Cirrhosis of Liver.....	9	6	15
Other Diseases of the Liver.....	2	4	6
Simple Peritonitis			1
Appendicitis.....	6	3	9
Bright's Disease	20	20	40
Other Genito-Urinary Diseases.....	2		2
Puerperal Diseases	6	3	9
Senile Debility	12	4	16
Suicide	8		8
Injuries.....	23	18	41
All Other Causes.....	15	12	27
TOTAL.....	301	203	504

Still-born Children—White, 27; colored, 31; total, 58.

Population of City (estimated)—White, 258,000; colored, 93,000:
total, 351,000.

Death Rate per 1000 per annum for Month—White, 14.00; colored,
26.19; total, 17.23.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 29.98
Mean temperature 82
Total precipitation 5.65 inches.
Prevailing direction of wind, south.

New Orleans Medical and Surgical Journal.

VOL. LXI.

NOVEMBER, 1908.

No. 5

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desired. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

A Few Clinical Results With Antistreptococcic Serum.*

By W. D. ROUSSEL, M. D., Patterson, La.

It is with the belief that the era of faddism in the use of many of the anti-sera, and of this one in particular, has passed, that the few following cases representing good results following its use are presented to you to-night. This addition to our therapeutic armament has gone through the periods of enthusiastic applause by all, and recrimination by many; to rest now in a state of relative security; relative only, since the governing indications for its use are not yet clearly appreciated by any of us, but secure to a great extent none the less, even though its use be frequently more or less empirical.

I will not occupy the Society's time by a discussion of the matter from my personal viewpoint at present; since the following incidents taken at random from notes and presented in as brief a form as possible, are given in the hope of provoking such discus-

*Read before the first meeting of the Attakapas Clinical Society, New Iberia, July 10, 1908.

sion among the members of this body; since from the opinions of you many, may be gathered the most of profit:

Case 1: Mrs. H. M., aged 37 years. In fair health up to birth of second child; no serious illness save appendicitis, 7 years ago. A poorly nourished, anemic female, with flabby tissues and low powers of resistance. In January, 1907, she suffered with a severe attack of acute bronchitis lasting three weeks. In March of same year developed a second bronchitis, of a progressive character, associated with high irregularly septic temperature, occasional chills and sweats, and rapid loss in weight. No hemoptysis. Examination of lungs showed widely diffuse moist rales, large and small, with occasional areas of increased respiratory sounds, but with no indications of consolidation. Ordinary treatment was continued for a period of ten days during which time the patient grew progressively worse. She expectorated in large amounts; had a temperature varying between $99\frac{1}{2}$ and 102 , and was fast losing ground. Tuberculosis was suspected and the sputum accordingly examined, with findings negative for T. B., but revealing large numbers of streptococci, practically in pure culture, with a few unidentified diplococci. Acting upon these findings antistreptococcic serum was administered, giving 10 c. c. every 4 hours during 12 hours, or 30 c. c. in 24 hours, for the first two days. At the end of this time all symptoms and signs were distinctly ameliorated, and the amount of serum was lessened to 20 c. c. in 24 hours for three days. At the end of this time the temperature had been normal for 10 hours, cough had practically disappeared, there were no physical signs of pulmonary or bronchitic involvement appreciable, and examination of sputum showed absence of streptococci except in very small numbers. From this time forward, under proper hygienic regime and tonic treatment, a good recovery was made.

Case 2. Mrs. J. W. N., aged 54. For a long time a constant sufferer from "chronic rheumatism," but in other respects always in very fair health. In December, 1906, she contracted a severe attack of bronchitis, and the findings were as follows: ordinary subjective symptoms present in aggravated form; temperature high; cough frequent, dry and painful; and physical examination revealed loud, large and small dry rales over both lungs. Expectorants were administered at this time. The moist stage super-

vened as usual, but with a persistent temperature, ranging between 98 a. m. and 101 p. m. with increasing prostration. On the fifth day of the attack very severe joint pains developed, with increase in temperature, and objective signs of a sub-acute articular rheumatism. Examination of sputum showed large amounts of streptococci, with a few staphylococci. Antistreptococcic serum was given in doses of 10 c. c. twice daily for four days. At the end of that time all pulmonary symptoms and signs had completely disappeared and the joint condition had returned to its previous state of occasional pain and articular stiffness. No final examination of sputum was made. I must say here that the salicylates were administered after the onset of the acute rheumatic complication that just due may be paid to this agent.

Case 3. Mrs. H. A., case practically similar to that of Case 1. A severe acute bronchitis with high irregular temperature, occasional slight chills with sweats, persisting in spite of usual treatment for ten days. Examination of sputum at the end of this time was negative for T. B., but showed large numbers of streptococci. Serum was given, 10 c. c. every six hours for three days, at the end of which time temperature was normal, physical signs absent, sputum free from cocci, and a convalescence instituted which was progressive and successful.

Case 4. Male, aged 49. Developed acute erysipelatos cellulitis of left leg below the knee, and treated same himself for a day. When seen the case was typical, needing no minute description. 20 c. c. serum were given at once (about 6 p. m.). The next morning the temperature was normal and the local condition, though still existing, much improved. A second dose of 10 c. c. serum was given at this time. In twelve hours after the last dose the lesion had entirely disappeared, and the patient was going about his work, that of teamster. No local treatment was used in this case.

Case 5. Male, Italian, was wounded with birdshot on inner upper aspect right thigh. Seen at once and the usual method of treatment done. Three days later a very severe wound erysipelas developed. 30 c. c. serum were given at one dose, and at the next visit twelve hours later, the infection had subsided. Four days subsequently to this, a fresh outburst of erysipelas took place, and a second dose of 20 c. c. was given, followed by as rapid a subsidence as in the first instance.

Case 6. Male, A. F., aged 84. Patient had suffered for a long time with an epithelioma of the right malar region. Erysipelas developed, the infection radiating from the carcinoma, with low temperature and severe prostration. 10 c. c. serum were given at once, followed in twelve hours by a similar amount. Almost immediate subsidence of the infection took place. A local application consisting of white precipitate in a lanolin base which had been in use on the cancer for some time, was persisted in during the course of the complicating infection.

Case 7. Child of J. L., white, aged 7 years, developed in February, 1908, an attack of mild scarlatina, which pursued an uneventful course until the sixth day, when acute articular involvement took place. The joints concerned were, left shoulder, hip and ankle, right ankle and elbow. Three doses of serum, 10 c.c. each were given at intervals of five hours. Almost immediate improvement was obtained after the first 10 c.c.; and the lesion had entirely subsided at the end of thirty-six hours. No salicylates were given.

Case 8. Infant child of E. M., aged 14 months. Developed an attack of scarlatina simplex with very slight throat symptoms. No treatment was made except the administration of a dose of castor oil and 10 c. c. serum. Improvement was immediate and recovery took place promptly. The eruption, which was only three hours old when seen, was not present fifteen hours after giving the serum.

Case 9. Girl of E. M., aged 5 years. Developed scarlatina within a few days of case 8. The disease assumed quickly the anginose form, this particular phase being especially severe. Serum was administered in doses of 10 c.c. every six hours for three doses. After the second dose the throat lesion began rapidly to clear up, and within seventy-two hours, with the exception of a mild pharyngitis, no evidence of the initial condition remained.

Case 10. Female child of V. L., Italian, aged 3 years. Was seen with a tonsillar and pharyngeal diphtheria three days old, very severely ill. Within thirty-six hours 12,000 units of antidiphtheritic serum were administered, with appreciable good effect. After slight local improvement the temperature began running a higher course and assumed a remitting curve, and the exudate on fauces redeveloped, being now of a pseudo-membranous character. Antistreptococcic serum was given in doses of 10 c. c. every five hours

until six doses were given. After the fourth dose the morning temperature was normal and the membrane had completely disappeared, and at the end of thirty-six hours the local condition, apart from slight reddening of fauces and tonsils, was normal. No bacteriologic examination was made in this case.

Case 11. Female child of J. E. M., aged 2 years. Seen with an attack of acute tonsillitis of twenty-four hours' duration. Tonsils and fauces were well covered with a white, glistening membrane, temperature very high and the upper cervical glands much enlarged. An application of tr. iodin co. was made at the first visit and a quinin mixture ordered. At the end of twelve hours condition was stationary. 10 c. c. serum were now administered and in ten hours the temperature had reached normal and the pseudo-membrane had disappeared.

Case 12. Female child of H. M. Acute follicular tonsillitis with high temperature, seen within twelve hours of onset. The administration of 10 c. c. serum promptly checked the infection.

Summarizing the above twelve cases we have: Three of acute streptococcic bronchitis; three of acute erysipelas; one of scarlatina simplex; three of acute tonsillitis including one of scarlatina anginosa; one case of scarlatina with a complicating acute articular rheumatism; and Case 2 in addition to the bronchitis a subacute articular rheumatism.

In full knowledge of the fact that the pathologist has as yet been unable to subdivide the bronchitides according to a bacterial cause, the three cases here reported presented on microscopic examination such indubitable evidence of the streptococcus as the exciting factor, that I have had no hesitation in naming them. I will not say what the outcome might have been in these three cases had not the serum been used; but I submit that it was directly responsible for the quick result obtained in each instance. In Case 8, of simple scarlatina, the eruption disappeared within a very short time after the administration of the serum; this, however, was not a severe infection. I consider this case to be, if I may so term it, the weakest of the series.

Cases 2 and 7 are especially interesting in view of the present fast growing opinion that acute articular rheumatism is a disease of bacterial origin; many reports are adverse to the efficacy of the serum in this disease.

Concerning the cases of erysipelas, I may say that, notwithstanding the statements made by many observers that antistreptococcic serum is of no value in this infection, I have personally used it in practically every case treated by me within the past seven years, and in every one have I obtained good results.

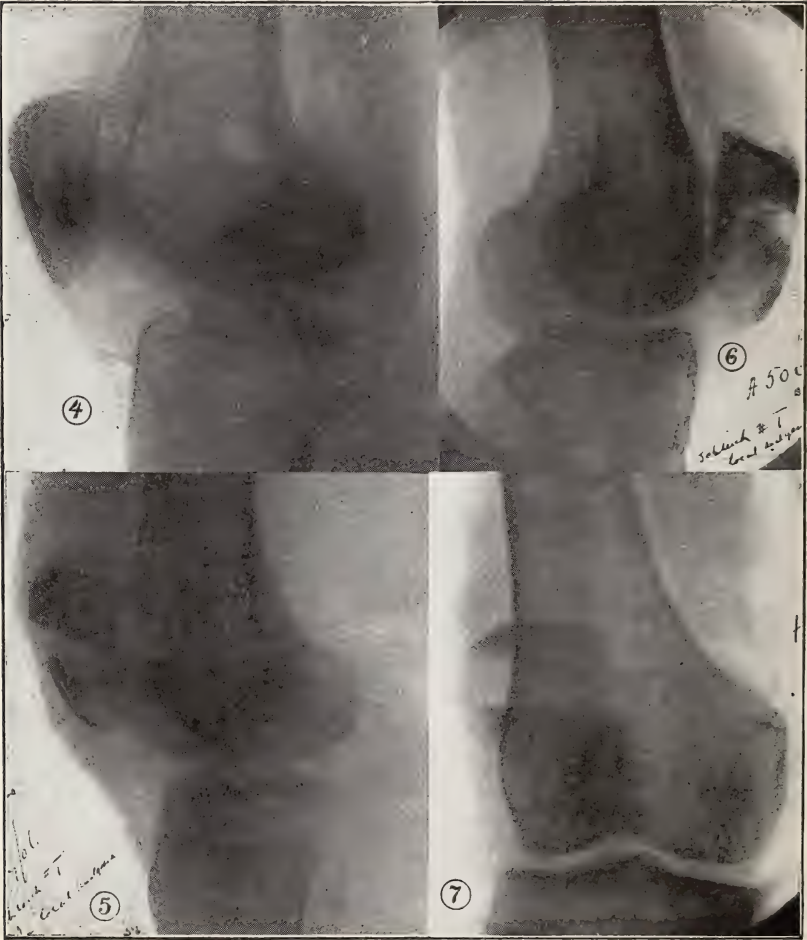
Concluding, I maintain that the serum will well justify its use in the results obtained, even though, from the many forms of streptococci known and our very frequent inability to determine the streptococci as the existing cause of any given case, its use may be to a great extent empirical, provided that it is used as soon as possible, in maximum doses, and in dosage frequently repeated.

Fracture of Patella; Radiographic Illustrations of Results of Treatment by Suture.*

By J. M. BATCHELOR, M. D., New Orleans.

The literature concerning fractures of the patella up to ten years of age is chiefly remarkable for the constantly changing view there represented concerning the proper treatment of same. The evil results of patella fractures vary from simple restriction of joint movement to complete loss of function with ankylosis. These evil results, partial recovery and impaired function are dependent upon two factors. First, improper coaptation of the fracture, and secondly, prolonged fixation of the joint with resultant atrophy of the quadriceps and shrinkage of the joint capsule. The former condition being dependent upon interposition of periosteal tabs, contraction of the quadriceps extensor and intra-articular hemorrhage, rendering it difficult to approximate the fragments. As early as 1868 v. Volkman attempted to secure close apposition of the fragments by sub-cutaneous suture which, with some modification, was later practiced by Kocher, Ceci, Heusner and others with the inevitable result of impaired function or, at best, a fortuitous union. After the introduction of the antiseptic period with Lister's attempt in 1878 to wire the patella by open suture and with the subsequent perfection of aseptic technique, surgeons the world over have come to the final adoption of the open suture as being the only method of removing the mechanical hindrance before mentioned. I have had the opportunity to operate in the last twelve years on eleven cases and it is my purpose to relate my experience in hand-

*Read before the Orleans Parish Medical Society, July 25, 1908.



Figures 4, 5, 6 and 7, Illustrating DR. BATCHELOR'S Article.



Figures 1, 2 and 3, Illustrating Dr. Batchelor's Article.

ling these cases and to exhibit several radiographs illustrating my final results. My first operation was performed in 1897 and consisted in wiring the patella with silver wire. This patient was admitted to the hospital May 17th, after sustaining a fracture of the patella by indirect violence. He stated that two years before fracture of the same patella had occurred and this had been treated by splint and bandaging. In this case as in all others, with one exception, I allowed forty-eight hours to transpire before operation, desiring to allow complete cessation of hemorrhage and thereby lessen the difficulty of operation. My subsequent experience in the second case, on which I operated immediately after the injury convinced me of the advantage to be gained by a forty-eight hour wait before operation. In this second case the constant oozing of blood in the joint, rendering frequent sponging necessary, left me in some doubt as to the wisdom of closing the joint in which I had reason to believe a collection of blood would finally be left. My technique in all subsequent cases, as in the first, has been to confine the patient to bed for forty-eight hours after the injury before operating and during this time to fix the joint and apply an ice-bag. I have found that the difficulty of operation is very much reduced by this preliminary wait, sponging being much less necessary and consequently much traumatism of the joint obviated. During the entire time of operation it has been my custom to allow a 1-20,000 bichloride solution to flow through the joint thus obviating the necessity for sponging and preventing the introduction of sepsis. The suture employed has been, indifferently, cat-gut or kangaroo tendon except in the first case where the patella itself was wired with two silver wires. In every case immediate and complete closure of the joint was done and primary union resulted in each instance. The post-operative treatment consisted in immobilization of the joint by a posterior gutter splint with confinement in bed for fourteen days after which the patient was allowed to get up and walk, the leg remaining in the splint. The intra-articular pressure from weight bearing I have found to aid greatly in overcoming stiffness of the joint and in causing resorption of adhesions that may have formed, and, I believe, contributes greatly to restoration of the joint function. I have rarely found it necessary to practice passive motion for more than seven days.

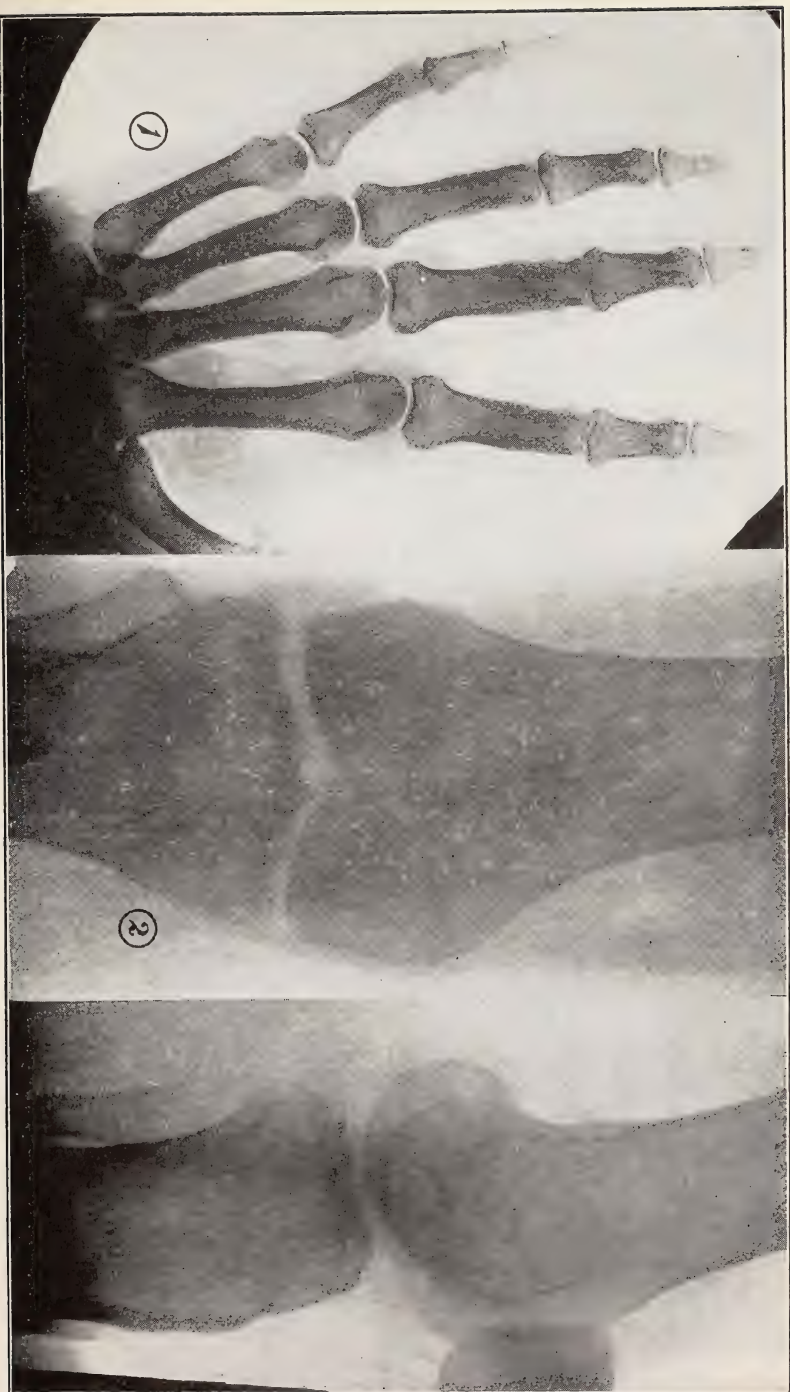
I herewith present radiographs of seven of these cases, the first series being taken four weeks after the operation and the second series being taken at varying periods from twelve months to two years later. You will see that in every case in the first series of radiographs taken four weeks after operation there appears to be a separation of the fragments, in one case an apparent separation of at least three-eighths of one inch. You will observe in the second series of radiographs that there is bony union in every instance, even in that case in which there appears to be a separation of three-eighths of an inch. Three of these patients, Nos. 5, 7, 10, were operated on under local analgesia, Schleich No. 1. You will observe that in two of these cases bony union was secured. I have not been able to secure radiographs of No. 10. In these eleven cases ten of them have perfect function of the joint, being able to flex the limb to the extreme and to mount a chair while standing close to it. My observations from the standpoint of these cases and of the radiographs of seven of them, lead me to the following conclusions to-wit: First, that bony union rarely takes place before the expiration of thirty days. Secondly, that bony union is possible where there is, after suture, a separation of the fragments equal to three-eighths of an inch. Thirdly, that whenever general anesthesia be directly contra-indicated such cases may be operated upon with the employment of local analgesia and bony union confidently expected. Fourthly, the usual requirements of the operation are first, preliminary fixation of the joint for from forty-eight to seventy-two hours to allow complete arrest of hemorrhage; secondly, suture of the lateral tear of the capsule thereby restoring the reserve extensors and obviating the danger of atrophy of the quadriceps; thirdly, absolute asepsis and immediate closure of the joint without drainage.

Subacute or Chronic Joint Disease, Non-Tubercular. Diagnosis and Treatment.*

By EDWARD S. HATCH, M. D., New Orleans.

I shall limit my paper to the types of chronic joint disease usually classed in the books as arthritis deformans, with the exception of the so-called villus arthritis. This latter type of joint disability is quite common and most often seen in the knee joint. It is not a

*Read before the Orleans Parish Medical Society, August 8, 1908.



general or progressive disease, and is brought about by trauma in many cases. In the knee the determining cause may be faulty walking, as in flat feet, or walking with the knees flexed, or by occupations, such as a gardener or fireman, where the knees are being constantly flexed and extended. This brings about an internal trauma. The synovial membrane of the joints become stretched and congested, and later after the stretching process has become marked enough, the membrane may become folded on itself, and often fringes are found, which hang down into the joints. This makes a vicious circle, and as the process goes on, the membrane becomes more and more swollen, and pinched by the bones in movements. These fringes after a time, due to insufficient blood supply, may undergo a fatty degeneration, and the lipoma arborescens results.

These patients give a history extending over some months with exacerbations; if it is the knee, the joint is somewhat enlarged and has slight crepitation on motion. The masses can be palpated on either side of and below the patella. In some cases where they are easily palpable, after a few days' rest in bed the knees seem perfectly normal, on exercising the masses can be again very plainly made out.

Case 1. Mrs. A. B., aged 40, married. F. H., negative; P. H., neuritis and anemia; P. I., patient has noticed for some time that the left knee joint has been larger than the right, and that she cannot get around on it as well as formerly.

Phys. Ex.: Well developed and nourished woman. Both feet pronated, left one more so than the right. Left knee presents a boggy swelling under and laterally to the patella, slight creaking on motion, circumference of left knee under the patella $12\frac{1}{4}$ inches.

December 6. Treatment: Knee vibrated and strapped with adhesive plaster.

Dec. 12. Less pain since the strapping. Circumference under patella 12 inches. Cast taken of left foot for plate to correct the pronation. Vibration and flannel bandage to knee joint.

December 24. Since wearing the bandage knee has increased in size again, $12\frac{1}{4}$ inches. Vibrated and restrapped. Patient advised to go to bed for a few days and completely rest the knee.

January 18, 1908. Patient has been in bed for one week, when

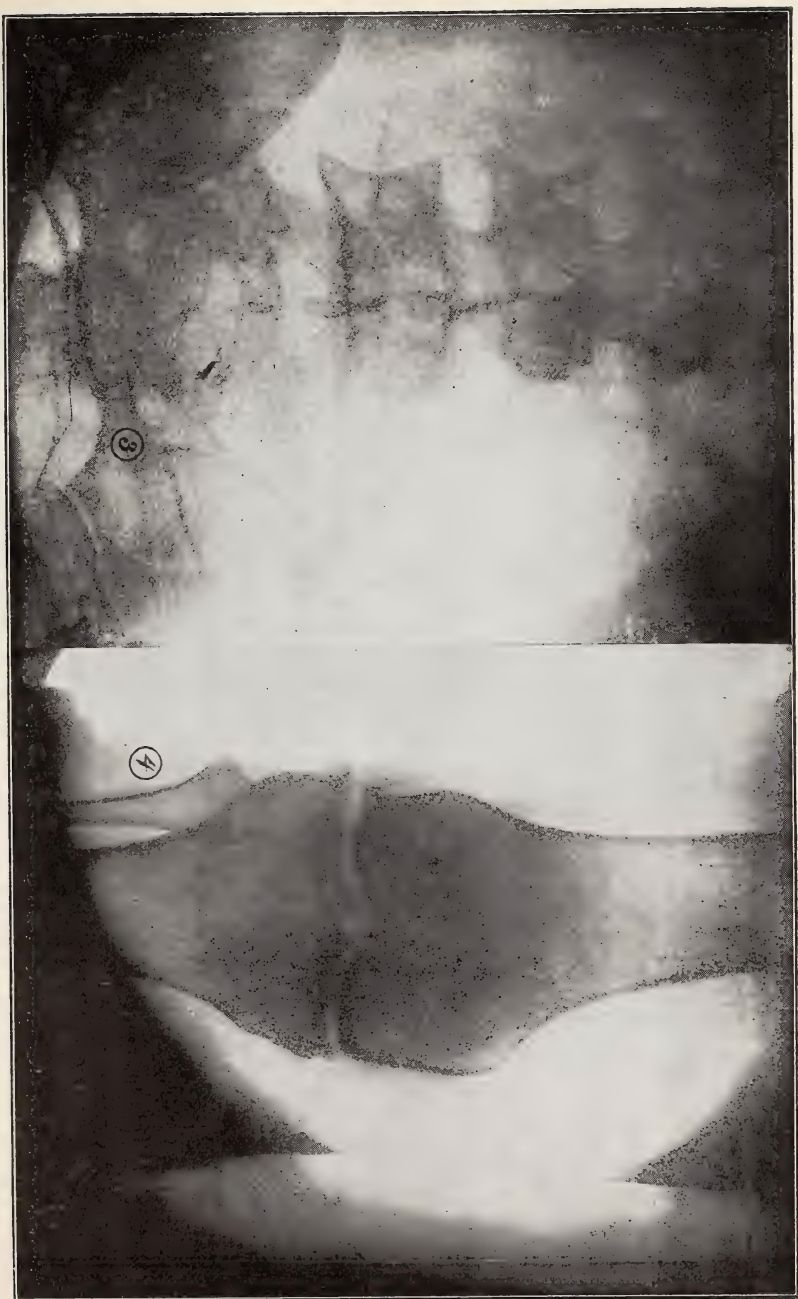
she was in bed swelling and discomfort entirely disappeared, but came on again after she began using the knee. Circumference now 12 inches. Plate fitted and knee strapped.

April 29. Has been wearing the plate and flannel bandage continually. Circumference now 11½ inches. Very little discomfort. To continue treatment.

In the treatment of these cases of villus arthritis we must bear in mind that it is often internal trauma that causes the condition and keeps it up. In the first place then, if there is any condition present that may cause this trauma, it should be relieved, as for example, relieving a condition of pronated feet. Again rest is indicated to let the swollen mucous membrane regain to some extent its original condition, this may be accomplished by the adhesive plaster strapping, or the flannel bandage, then vibration or hot air to stimulate the circulation. We often see cases where these measures are not of any lasting benefit, and in such cases, it is best to excise the fringes under rigid aseptic precautions.

Turning now to the general disease, arthritis deformans, I feel that we can separate these patients into two classes, namely: the hypertrophic or osteo-arthritis and the orthopedic or rheumatoid arthritis.

The *hypertrophic* type is as the name implies a true new growth being cartilaginous and later bony. It is seen in nearly all the joints, but the most common sites are the spine, knees, hips, shoulders, and terminal finger joints in that order. It is seen more often in men than in women, and usually in middle life and later. The osteo-arthritic spine is a very frequent sight in all adult orthopedic clinics, and is much the most common location for this disease. In the series of 180 cases from the orthopedic out-patient department of the Touro Infirmary there were 33 cases of hypertrophic spine. Usually the patient comes in complaining of pain down one leg, which, he often says, he has had before and which got better of itself. On examination, we find the spinal motions limited, and usually either the right or left lateral bending is more limited than the other side. This is because the bony deposit seems generally to take place more on one side than the other. This consists in an enlargement or lipping of the edges of the articular cartilages, and later the ossification of these foci and the extension of process into the ligaments. In some of the cases, we



DR. HATCH'S ARTICLE.

find the back very much rounded, in others, it is comparatively straight and stiff. Dr. Goldthwaite believes this to be due to the fact that in the first instance, the process of ossification is slow, and the intervertebral substances atrophy, and may become entirely absorbed before ankylosis takes place, and in the second instance, the process is a much more active one, and the spine becomes ankylosed before the discs are absorbed. This process of osteo-arthritic change may be limited to a small part of the spine, or may be very general. If the dorsal region is the seat of trouble, the ribs are fixed and the respiratory excursion is much limited.

Mr. J. B., aged 39, married and a laborer. F. H., negative; P. H., children's diseases. Otherwise well, except for gonorrhea, seven or eight years ago. P. I., has had some pain now and again in the small of the back for several years, used plasters and relieved the pain himself, but the last attack has now lasted for several weeks, and he has not been able to relieve it. Pain sometimes is noticed running down both legs, but most often in the left.

Ph. Ex.: Very well developed and nourished man. Spine stiff to all motions, and in forward bending, patient lists to the left, left lateral bending more restricted than the right.

Treatment: December 19, 1907. Back strapped.

December 24. Has been better since the strapping until yesterday, when he had a fall, since then the pain has been worse, back restrapped.

January 2, 1908. Spine somewhat more flexible. No pain while the strapping was tight; restrapped.

January 11. Pain much less. Not restrapped today on account of skin irritation. Patient refused canvas jacket.

July 17. Has been very comfortable until lately, but now has the same pain as before; has been at work all the time.

Exam.: All motions of the spine limited as before.

Treatment: Back strapped.

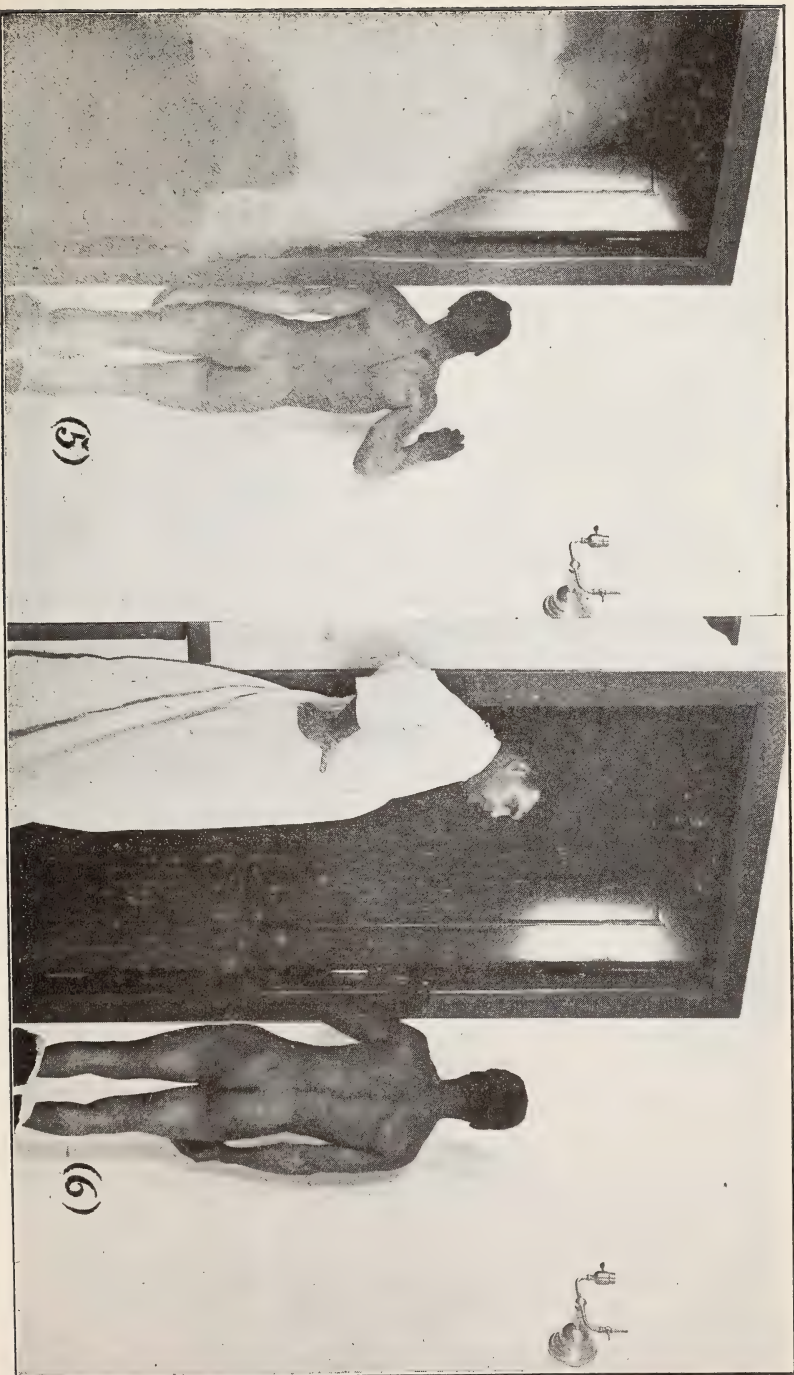
July 25. Much improved since last strapping, restrapped.

Turning now to other joints, the knee joints, for instance, we find the disease here, causing a lipping of the femur, tibia and patella. In well-marked cases, these projections can be distinctly felt on examination, and some times a distinct ridge can be palpated. In doubtful cases, the X-ray will at once clear up the diagnosis.

The patients present some stiffness of the joint with crepitation, and more or less limitation of motion, differing as we see the disease early or late in the course. This applies equally well to the hip joints and shoulders, but the disease is not nearly as crippling as the atrophic type. The one thing to remember in the treatment of this class of cases is rest for the joint affected, not only always by complete fixation, but in a greater or less degree, as the case demands, a limitation of the normal motions of the joint. Anything like extra motion, as passive motion, massage, or prolonged use of a hypertrophic joint is followed by an exacerbation of the symptoms. In the spinal cases where they are mild, and respond quickly to treatment, adhesive plaster strapping for a few times followed by a light canvas jacket is often all that is needed. If the case is more severe, a plaster jacket gives the most relief, this may be put on in the erect position, or on a frame. I have found that if the hypertrophic condition is in the lumber spine, and extends into the sacro-iliac joints, that it is much harder in these cases to make the patients comfortable, and oftentimes the first jacket will not relieve the pain. These patients can quite soon dispense with the plaster jackets, and have a removable leather jacket made from a plaster model, which is much easier to wear, especially in this climate.

In the knee joint, adhesive plaster strappings for some weeks followed by a flannel bandage gives very good results. In the hip a flannel spica and sometimes a plaster spica is needed. I have some times found that sweating the joints with rubber tissue gave relief from pain where it was a troublesome symptom.

Atrophic. This class of cases is usually seen in young adults, and more frequently in women than in men. It is generally a polyarthritis, and in this way differs from the hypertrophic type. If we see the cases early in the disease, we see the joints swollen with an increase of joint fluid. Very early in the disease the joint structures show atrophy, and this can be seen with the X-ray, as an erosion of the articular cartilages. As the disease goes on the cartilages may become entirely absorbed and the joint firmly ankylosed. The joints usually seen affected are the second inter-phalangeal joints of the fingers, wrist, elbows, knees, and some times nearly all the joints in the body may be affected in the same patient. This is much more crippling than the hypertrophic form. The



etiology is obscure, and as yet no definite cause has been found. Very often these patients have some trouble with the general metabolism of the body, such as some form of gastritis, chronic indigestion or liver trouble.

Case 1. Mrs. B., 36 years old, married. F. H., negative; P. H., good; P. I., about 15 years ago the left knee commenced to be swollen and stiff, in three weeks the other knee became affected, later the left wrist and elbow, then the right wrist and elbow, and later still the ankles.

Previous Treatment: Rheumatic remedies and a trip to Hot Springs.

Ph. Ex.: Fairly well developed and nourished woman. Both elbows are somewhat swollen, and have about 20 degrees of painless motion. Cannot be extended beyond the right ankle. Wrists somewhat stiff, but she can use them slightly. Ankles can be flexed and extended but no pronation or supination possible. Knees have about half normal motion.

Treatment: Hot air to all the affected joints and the full diet. After three weeks pain much less, but no change in range of motion in the joints. To continue the hot air treatment, and take a fermented milk diet, supplemented with vegetables and starch food.

Treatment: In the treatment of this type of arthritis, I think that first of all, we can say the usual rheumatic remedies, such as salicylates and the ever present Hot Springs trip are absolutely contra-indicated, and likewise is the old-fashioned rheumatic diet. These patients are generally in a more or less debilitated condition, and it has been my custom to put them as soon as possible on a full nourishing diet, with plenty of fresh air and sunshine, and lately I have been using the method advocated by Dr. Hoke, namely, the fermented milk diet, the idea being that these patients need an excess of lactic acid and the lactic acid ferments to work against the intestinal putrefaction, which he believes to be at least one of the causes of this disease. I have not had any patient on this diet long enough to be able to say whether it has given better results than the other methods, but Dr. Hoke has certainly reported some very remarkable results from this diet.

Coming then to the local treatment, the keynote is stimulation, and the methods usually employed are hot air baths, electric light

baths, massage and vibration. If there are many joints affected, the hot air full body bath is to be preferred, but usually the patients have the various joints bathed separately, followed by massage or vibration. Dr. Peckham has recently reported in a very interesting article some excellent results from the use of electric light body baths followed by a cold water sponge, and general and local vibration, in this type of disease.

Infectious Arthritis.*

By J. T. HALSEY, M. D., New Orleans.

"The term infectious arthritis is used to designate a joint disease resulting from the presence within the body of some infectious organism, the symptoms being due either to the presence of the organism itself within the joint or to some toxin produced by that organism in some other part of the body."—(Goldthwaite, *Boston Med. and Surg. Jour.* Nov. 17, 1904). This type of joint disease is by far the most common affection of these structures and includes the great majority of those cases commonly called rheumatism and it seems also correct to consider true acute articular rheumatism or rheumatic fever as one of the many forms of infectious arthritis.

Pathology: "The changes which take place in the joint tissues are manifold, varying from those of a simple acute exudative inflammation confined entirely to the synovial membranes of the joint, which clears up after a time with little or no permanent pathological changes and no interference of the joint function, to an inflammation of the severest type with purulent exudation, and destruction of serous membranes, cartilages, and bones, the result of which must necessarily be a complete fixation of the joint. Naturally between these two extremes we meet with all possible variations."

Etiology: All or nearly all the pus-producing bacteria, the causative agents of all our common infectious diseases, such as typhoid, scarlatina, diphtheria, measles, pneumonia, influenza, and dysentery, appear to be capable of acting as causative agents in producing these conditions. It is also probable that some of the joint pains of syphilis and of tuberculosis are due to arthritis of

*Read before the Orleans Parish Medical Society, August 8, 1908.

this type, caused by the toxins of these organisms acting on the joint tissues. In the great majority of cases the pathogenic organisms are not found in the exudates and it seems probable that, if present at all in the joint, they are present only in small numbers. (1)

Where the bacteria are present in large numbers in the joints, we almost invariably are dealing with severe cases with more or less destruction of the joint structures, while, where there are few or no bacteria in the joints, the destructive changes are as a rule less marked or absent. This distinction between these two classes of cases is of more than theoretical importance, for it has a very direct bearing on our treatment and is one of the deciding factors in the answering of the question as to whether or not active surgical treatment shall be instituted.

Clinical Course and Symptoms: An infectious arthritis may be mild or severe, acute or chronic, monoarticular or polyarticular. In some cases the only symptoms may be a slight swelling and tenderness of the joint or joints involved. In others in addition to severe pain, redness, tenderness, and swelling of the joints, all the ordinary constitutional symptoms of an acute infectious disease may be present and by their gravity and severity overshadow the local joint symptoms. A point, which the writer wishes to especially emphasize, is that infectious arthritis is protean in its manifestations and that any attempt to differentiate between different cases of this type of disease by simple observance of the clinical course of the disease is liable to lead one into error. It is only by discovering the etiological factor in any given case that we are able to say with a reasonable degree of certainty that we are dealing with a case of infectious arthritis due to some specific cause. By this statement the writer does not mean that we must secure and demonstrate the special bacterium involved, for this is usually impossible under ordinary conditions of practice and often impossible with all laboratory equipments at our disposal, but it may

(1.) Recent investigations indicate that in certain joint affections, especially those of rheumatic fever, the bacteria are very frequently present deep down in the cartilages although repeated examinations of the exudates both ante and post-mortem had failed to demonstrate their presence. This naturally raises the question whether they may not be always present in the joints in infectious arthritis or at least much more frequently than we have formerly believed. As the milder cases seldom or never come either to post-mortem or operation, a demonstration of the correctness of this view is difficult and has not yet been obtained. Certain theoretical considerations speak strongly for the probability that small numbers of the bacteria may be present in all or nearly all joints which are the seat of an infectious arthritis, but clinically it is convenient to continue to think of certain of these joint inflammations as due to the action of toxins manufactured elsewhere and transported by the blood to the joints.

often be done by obtaining a history of some antecedent, or evidence of some accompanying infection.

Complications and Results: Most of us are, the writer believes, too much inclined to the view that it is only in cases of true acute articular rheumatism that there is much danger of the development of an endocarditis. While it would appear to be true that the danger of such unfortunate complication is greater in rheumatic fever than in other forms of infectious arthritis it is nevertheless equally true that an endocarditis may and frequently does develop during or subsequent to attacks of arthritis due to any one of the causes enumerated above. The final results vary from that of a complete recovery with no impairment of function to that of complete destruction of the joint with immobility and deformity. It is also well within the range of possibilities that death may be the end result in a severe case.

Diagnosis: Cases of infectious arthritis, whether acute or chronic, often closely resemble those of atrophic or hypertrophic osteitis. Usually the history of the case and especially the demonstration of the etiology and close observation of the clinical course and symptoms enable us to differentiate between these types. In doubtful cases we have of course in the X-ray an unfailing means of differentiation, but, until we get pocket X-ray machines, we will usually have to get along without this assistance. An increase in the number of the leucocytes usually accompanies an acute infectious arthritis, but has often disappeared in the subacute and chronic stages, and it is in just such cases that we are likely to be in doubt. An acute or chronic endocarditis, if present, points toward the infectious nature of the trouble, as does high fever or fever persisting for some time. In cases of atrophic or hypertrophic osteitis there is usually a history of previous attacks, but we all know that infectious arthritis is also a disease which is liable to recur. In cases of either form of osteitis we are often able to find unmistakable evidence of this condition in one or more joints and this often helps to clear up our doubts, but we must remember that either of these types may exist and the patient acquire an infectious arthritis on top of the pre-existing condition.

When one has reached the conclusion that a given case is one of infectious arthritis, the diagnosis still remains incomplete in two important particulars. It must still be determined whether there

is an invasion of the joint by bacteria in sufficient numbers to cause destruction of the tissues or whether the inflammation is due only to the action of toxins produced elsewhere in the body, and it is of almost equal importance that the exciting cause of the arthritis should be discovered. Where the inflammation is comparatively mild, we are safe in treating the case as one without bacterial invasion, while with very marked redness, pain, tenderness and swelling the presumption is that they have invaded the joint and are likely to cause much destruction there. Where any doubt exists an aspiration of the joint will help to clear up the condition. Such a procedure is easy to carry out and not attended by much discomfort to the patient nor, if we are careful, by any danger to him. Such aspiration of joints should be done much earlier and far oftener than is our ordinary custom and in this way many a joint be found to need and enabled to receive surgical treatment, at a time when irreparable damage has not yet occurred.

The discovery of the exciting cause of the infection has also its direct bearing on the treatment of the case and no pains should be spared in hunting for it. This for two reasons. One that often the joint condition resists all treatment until the original focus has been healed, the other, because we can often prevent recurrence of the arthritis only by removing the primary focus of infection. Such possible foci are numerous, and varied in character and situation. Any chronic or acute pus process in the upper air passages or their accessory sinuses, a lung abscess, an empyema, infected wounds or abscesses anywhere in the body, such as a chronic appendicitis, or gallbladder disease, endometritis or salpingitis, an ischio-rectal abscess, suppurating piles, ulcers in the intestine, and gonorrheal or other infection of the genito-urinary tract are among the commoner exciting causes of infectious arthritis. We are all familiar with the role which tonsillitis plays in the causation of rheumatism, but few except the throat specialist and unfortunately not all of these appreciate how insignificant a chronic tonsillar trouble may exist unsuspected and be the cause of recurring attacks of joint trouble. In any case of arthritis, especially where the attacks recur, the tonsil should be most carefully examined by a competent individual and, if found to be affected, prompt and efficient treatment should be instituted. The nature and extent of this treatment should naturally be decided by the individual who is

to do the work, but the writer believes that even the specialist too often contents himself with more or less palliative measures where a radical and complete extirpation of the tonsil should be done.

No one with sufficient clinical experience can deny that we will occasionally meet with cases of infectious arthritis where the most careful investigation fails to reveal any existing focus of infection, but, on the other hand, one who regularly, in such cases, searches for this will be repaid by success in the majority of his cases. If the profession realizes the importance of this searching for the exciting cause of the joint trouble, many a patient would be rescued from the curse of recurring attacks of rheumatism with the resulting of impairment of general health, stiff joints, and endocarditis. Especially with children is this matter of very primary and extreme importance.

Treatment: Any complete discussion of the treatment of infectious arthritis would lead us too far, but a few points may with profit be mentioned. Having rid ourselves of the tradition that uric acid plays any causative role in rheumatism, the various more or less limited diets advised lose their apparent justification. Infectious arthritis is an infection and the patient needs plenty of food, fresh air and water. The only contraindication to any article of food is to be found in its indigestibility. Red meats are neither worse nor better than white ones for these cases, nor will the patient be benefitted by limiting the total amount of proteid below that of an ordinary diet. There is also no foundation clinically or experimentally for a more or less widespread belief that certain vegetables, for example tomatoes, are harmful to a case of rheumatism. Give your patient anything he likes, if you believe he can digest it, and give as much food as you can without overburdening his digestive apparatus. Drugs should be used for the symptoms, but one should not forget that neither the salicylates nor any of the newer substitutes for them are drugs which work only for the good of the patient. All of them given in too large amounts or continued for too long a time are poisons to the central nervous system, many of them are especially destructive to the red cells, and some of them are, in varying degrees, heart poisons.

Bier's passive hyperemia has in the experience of the writer, as well as of many others, been extremely helpful and has rarely failed to secure very decided relief of suffering. Immobilization, hot or

cold applications, and counterirritation by the actual cautery are the chief methods on which he relies for relieving pain and other symptoms. Salicylates should be used as adjuvants to the general and local treatment and not as a specific treatment of the disease.

The Clinical Significance of Growing Pains in Children.*

By W. W. BUTTERWORTH, M. D., New Orleans.

It is a popular belief among the laity and with not a few physicians, that normal growth of stature is frequently associated with so-called "growing pains." This forms an ever-ready explanation and is an extremely common diagnosis for several pathological conditions some of which are of little moment, either at the present day or in the future years, and yet, unfortunately, there are other conditions where the early and prompt recognition of these general ailments may, and often does mean the minimizing, if not the prevention of organic changes in vital organs or the sparing of a deplorable physical deformity, or even the saving of a young life, and if such an erroneous belief can entail such consequences, surely it is important and timely that physicians should discard and reject so misleading a term as "growing pains," and which, as Jacobi truly says, "dates from the medical nomenclature of a past century and ought to have been dropped long ago."

The very general misconception among the laity of the trifling character of indefinite pains in children had its origin in the medical teachings of past generations for Duchamps, more than 100 years ago, considered growth as the etiological factor in the production of fever and of nearly all the pains and ills of childhood and adolescence. Later, Bonilly and Comby, of Paris, and Guida, of Florence, wrote of the intimate relationship of growing fever, of growing pains and growth in young persons.

In 1879, Bonilly published a paper on "Growing Fever of Infants and Adolescents," in which he attempted to recognize in growing fever and its associated symptoms, growing pains, a distinct morbid entity; later developments in several of his young patients showed them to have been cases of osteomyelitis.

Eustace Smith, in the third edition of a "Practical Treatise on Diseases in Children," published in 1886, makes reference to the

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pyrexia which sometimes attends rapid growth and cites an illustrative case, which in the light of present day knowledge, would in all probability be diagnosed as auto-intoxication or a mild typhoid infection.

Ashby and Wright, in their 1889 edition, say that "Growing fever is sometimes met with usually in children from 7 to 15 years of age, though occasionally at both earlier and later periods. The main features are pain in the region of the epiphyseal lines, rapid growth and fever, and sometimes with considerable constitutional disturbance. Usually the symptoms pass off without any bad results, but in rare cases osteomyelitis may be set up and the development of exostoses about the epiphyseal lines has also been noticed after the occurrence of growing fever."

Very recently, G. Stanley Hall, in his work "Adolescence," states that if growth is excessive, there are often two kinds of growing pains. First, that located in the epiphyses or growing centres of the bones which are supplied with nerves, and they may become the seat of inflammation.

Secondly, the bone may grow faster than the muscles or the skin; the latter then suffers from abnormal tension and are stretched and may become acutely painful.

In view of these opinions, I have made a careful review of the recent literature bearing on this subject, and it is very significant that one finds no mention of growing fever while its remaining vestige, growing pains, seems destined to join its parent in oblivion, for several well-known authors on pediatrics have discarded and evidently do not recognize such a condition as growing pains, while other writers indicate that that which has been called wandering or growing pains, is of varied origin and character, and that they are met with in several pathological conditions. They are symptoms and not a clinical entity. That normal growth of the body in the infant or child is ever a painful condition, is open to serious doubt, and from the pediatrician's point of view, should never be considered. Therefore, it is important and necessary that the true character of these indefinite pains should be ascertained and a careful examination will almost always disclose that they may be grouped as follows:

First. Myalgia or fatigue pains are due to over-exertion. They are inconsequential.

Second. Pain due to a neurosis of a joint and confined mostly to the large joints.

A third group is due to a slight separation of the epiphyses from the shaft and incomplete fractures about the joint.

In a fourth group are the epiphyseal pains, occurring in malarial and typhoid fevers and seen during convalescence from the infectious fevers.

Fifth. An epiphysitis, due to disturbances of nutrition and met with in anemia, lues, rickets and scurvy.

The referred pains of flat-foot, poliomyelitis and hip-joint disease, constitute another division.

Sixth and of special importance because of the destructive tendency of their lesions, are the epiphyseal and osseous pains, seen in osteomyelitis and tuberculous conditions of bones and joints.

Finally, there is the larger group of cases of indefinite pains, which are often the only objective symptom of rheumatic fever, as it occurs in children.

The following case of so-called growing pains recently came under my care and suggested the presentation of this paper:

H. B., white boy, 11 years old. Parental history negative, other than his mother and two sisters are subject to repeated attacks of tonsillitis.

Personal history: Had whooping cough when a baby, measles at 7 years of age, without complications; adenoids removed three years ago for deafness with satisfactory results; has had two or three attacks of tonsillitis each winter.

Present illness. Two weeks ago commenced to work in a damp shop and three or four days later began to complain of pain in his legs and of being very tired.

Physical Examination. Fairly well-developed and nourished. Is pale, temperature 99.5 F., pulse 102; throat is normal, lungs negative. The apex beat is $1\frac{3}{4}$ inches below the left nipple and in the mammary line. A systolic murmur is heard at the apex and is transmitted toward the axilla. Liver and spleen are not palpable; urine is normal. There is slight pain on motion in both knees and ankles, in right shoulder and left wrist. The affected joints are very slightly swollen.

One week later, all pain and swelling had disappeared. Temperature 99 F.; pulse 92. The basal cardiac sounds are accentuated, there is a thrill and a loud systolic murmur at the apex.

This case is one of several I have seen and I do not think it is an exaggeration to say that the rheumatic state in childhood is not sufficiently appreciated by the profession at large; in its symptomatology it is entirely distinct from the acute rheumatic fever of the adult and organic cardiac lesions do follow, because of the failure to recognize the meaning of a very slight articular pain, sometimes only produced by motion, and with a rise of temperature so slight that it is not known until the thermometer is used.

In conclusion, I wish to reiterate that so-called wandering or growing pains, most often mean the rheumatic state, with all of its dire possibilities.

Congenital Ichthyosis With Report of a Case.*

By Dr. J. J. WYMER, New Orleans.

Ichthyosis is a congenital, intra uterine, fetal disease characterized by a peculiar skin phenomenon which is chronic in character.

Nothing is known of its etiology and while the cases are very rare, the presence of one case in my practice has impressed me so much that I have decided to report same with the hope of causing a discussion which may enable us to clear up the etiology of this strange and fatal malady.

The journals and text-books which I have investigated have given me no insight as to the probable cause of ichthyosis, and I regret to say that little or nothing is written on the disease. It does not seem to be a disease of any climate, or country, but of the few cases that are reported they seem to be only in the Caucasian race, and the prevalence is no greater in the North than in the South. While I can report on but one case, I know that others have existed in this city.

Heredity may play a part in this condition in some cases, still I do not believe it played any part in the case I shall report to you shortly. Being an intra-uterine disease, the germ theory can in my estimation be safely eliminated here.

The appearance of the baby suffering with this disease, makes a lasting impression on one, and when once seen will always be recognized later; the upper eyelids are in a state of complete eversion (ectropion) while the ears, nose and mouth are distorted, and the body and extremities are so swollen that fissures of vari-

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ous lengths and depth are found in the skin. The nails and hair are undeveloped.

The edema is so marked about the fingers and toes that they appear to have constricting bands about them; the skin when cleansed of the vernix caseosa has the appearance of being covered with collodion.

The child is very restless and irritable, and cannot open the eyes; nutrition is very difficult owing to the deformity of the mouth, caused by the swelling and fissures making it impossible for the baby to coapt the edges of the mouth while nursing.

Later a purulent discharge makes its appearance in the eyes and the body becomes offensive, due to some secretions. The edges of the fissures begin to curl up and desquamation is started. The time for complete desquamation varies, but as soon as the hardened skin has been removed a reddish glistening surface remains, which later undergoes the same procedure as the first. The skin is removed in very small pieces and apparently unattended with pain. The eyes, however, do not participate in the second phenomena and when the eversion has disappeared it does not return. This same condition exists in the ears and nose. When in the warm bath the patient seems comfortable and immediately goes to sleep on being taken out of the bath.

The prognosis is bad in all cases and the duration of life after birth depends on the severity of the disease and the care and attention of the patient. As a rule the baby dies in a few hours after its birth, but may live for weeks and months, and one case being exhibited as an alligator boy lived several years.

The treatment is purely symptomatic. No specific is known. The surface of the body is covered with an oily substance and warm baths are given two or three times daily. The eyes are washed out every half hour with boracic acid solution and after drying a few drops of castor oil is put in each eye to prevent ulceration of the exposed conjunctiva.

I shall endeavor to report in detail the case as follows:

Mother and father of the baby in perfect health, this being the third issue of their union. The parental history of both the father and the mother is also good, there being nothing which could account for the disease in the child under observation.

Other two children were normal in every respect and are intelligent above the average.

I was engaged to deliver the case during the third month of pregnancy, and while I made the usual examinations of the patient and her urine, I failed at any time to discover any irregularity to warn me that I was to have other than a normal delivery with a normal fetus. During the later months of the pregnancy the mother suffered with pains in the lower parts of the abdomen and the feet were swollen, but this I attributed to the presence of the gravid uterus, or the probable existence of some adhesions which were present before conception.

The labor was normal in every respect and was rather shorter than usual. The mother going to bed at twelve o'clock at night having no idea that she would shortly be delivered of her child. She experienced pains about half past one o'clock, and upon arriving at the house at two I found on examination that the waters had ruptured and that she was in the second stage. It was too late to give a douche or any other preparation than the application of carbolized cloths (carbolic solution $\frac{1}{2}$ of 1%) over the external parts. I merely mention this to show that there was no antiseptic douche given which could account for the appearance of the baby at birth. The labor was very rapid and at the end of three hours the process was complete even to the delivery of the placenta.

My first attention to the peculiar condition of the fetus was when the head came over the perineum; I noticed three deep fissures in the back of the neck or posterior cervical region, and as the rest of the body was born this same condition was noticed to exist all over.

The eyes were closed and the upper lids were everted. Ears were apparently deformed and the nose was large and flat. Many fissures radiating from the mouth which was so swollen with the edema that it appeared twice the normal size. The digits gave to the appearance of the hands and feet the resemblance of claws, and the entire child presented a hideous object for inspection.

I at once ordered the entire surface covered with olive oil and when the vernix was removed in the bath, the body was covered with oxide of zinc ointment, half strength. The eyes were or-

dered washed every half hour with a weak solution of boric acid. Later in the day I again saw the child; but no appreciable difference in the condition presented itself. The child was put to breast and attempted to nurse, and while there was some leakage about the corners of the mouth, which may have been due to the too rapid flow of milk, there was sufficient to find its way into the stomach to nourish the child. Delivery on July 11, '08.

July 12, '08—Bowels moved, voiding freely and nourishing well; sleeps well after the bath and the application of zinc ointment. The edges of the fissures are beginning to raise and there appears as if desquamation is going to take place. Numerous new fissures are noticed in the skin of the scalp and trunk and dividing the body into smaller squares.

July 13, '8—Desquamation is starting and in several places the skin came off in the bath. Bowels and bladder normal.

July 14, '08.—Baby nourishing very well and the skin is coming off in large quantities, especially in the perineal region which seems to be the first to desquamate. The new skin appears very red and angry, resembling inflammation. Called Dr. Fenner in consultation and accepted his suggestion to drop castor oil in the eyes in addition to the boracic acid washing. Bran baths were also suggested and these were ordered started.

July 15-16.—Eyes are much improved and the skin is coming off in the bath from other parts of the body in very small pieces. Fissures are noticed behind the ears which allow of more freedom of the external ear. The ears are now more normal than at the time of birth, and what appeared to be a deformity is now seen to be nothing more than the result of the swelling, etc. The mouth is beginning to desquamate and the child is able to nourish much better.

July 17.—While the desquamation seems to be progressing fairly well all over the body, the fingers and toes are not participating in this process.

July 18.—Desquamation on the face and neck is complete; the ears are perfectly free and the marked deformity which originally existed has entirely disappeared. The treatment has not been changed up to the present time, but to-day I have added sulphur to the oxide of zinc ointment. Deep fissures are noticed in the folds of the feet, wrists and elbows, which cause the child to hold

the limbs in flexion. There is a very disagreeable odor emanating from the body secretions.

July 22.—There is nothing to note in the past few days except that the ectropion has disappeared and is only present when the child cries very hard; no change in the skin of the fingers and toes. The entire body outside of these places has completely desquamated. The surface left is shining and red, and in those places where desquamation has been complete for several days the skin is becoming copper-colored. The hair is beginning to come out on the scalp, but the skin of the scalp is so cracked up that the surface looks like the alligator skin.

July 30.—New fissures are noticed in the skin of the perineum and the process seems to be beginning over again. There appears to be more purulent secretion coming from the eyes than usual, so I have decided to use argyrol 2% sol. in the eyes about two drops in each eye several times a day.

Aug. 1.—Eyes bleeding, I have discontinued the frequent use of argyrol solution and have limited the use to one application daily.

Aug. 4.—The eyes are improving nicely and the other condition of the body has remained the same.

Aug. 6.—Notified that the child died this morning during the sleep of the mother. Nourished well at 5 o'clock and went to sleep. Mother found him one hour later. At death the entire body was cyanosed and appeared to have died from respiratory failure.

Indicanuria in Childhood, with a Report of Cases.*

By E. D. FENNER, M. D., New Orleans.

There are met quite often in practice amongst children cases which present a varied group of symptoms, mainly in the form of nervous disturbances, which cannot be attributed to any disease, but which are sufficiently distressing both to the little victim and to its parents to demand relief. Those symptoms take in most cases the form of disturbed sleep, night terrors, mental depression, fretfulness, and such a change in disposition that a child who has ordinarily been bright and cheerful becomes moody, irascible, and cries almost for nothing. With these nervous symptoms there

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is generally associated a loss of appetite, and in a good many cases there is distinct disturbance of the bowels, although this is by no means always the case. The clinical picture is varied. Some will present all of the symptoms named; others will exhibit only one or two. Generally the condition has existed for a considerable time, and often, at least in my own experience, the family physician has been consulted, only to pass it over lightly with the recommendation that the child be given a dose of oil, or magnesia, or calomel. This advice is undoubtedly excellent as far as it goes, but it requires to be followed up for a considerable time if the child is to be restored to health.

It is not my intention in this paper to enter upon any discussion of the various forms of auto-intoxication, not to undertake to explain the chemistry of indicanuria. We are, all of us, aware of the fact that indicanuria is the product of intestinal putrefaction and that its presence indicates that poisonous materials which should have been eliminated are still circulating in the blood. These products are capable of causing active symptoms, and an examination of the urine in the class of cases to which I have alluded will nearly always show the presence of an excess of indican. The detection of a large amount of indican will furnish an indication for treatment which will, as a rule, be rewarded by prompt improvement in your little patient.

It must not be inferred, however, that every child who suffers with restlessness at night, with night terrors, or with depression and failing appetite, has indicanuria. In quite a number, as I had demonstrated to me by one of my own nieces during the past winter, all of these symptoms which I have grown to associate at once with indicanuria may be present, and yet the urine may not show a trace of indican. In the great majority, however, the test for indican will be rewarded, and will set you confidently upon the right plan of treatment.

The treatment of this condition is both medicinal and dietetic. In my own practice, I have followed the lines laid down by Ratchford in the management of recurrent vomiting, which is usually associated with acetonuria. I simplify the diet as far as possible, prohibiting or reducing very greatly the meats and all sorts of sweets, and where it is possible and the child will take it readily, I attempt to replace sweet milk by buttermilk, at least for a time.

The medicinal treatment consists in the administration three or four times a day of some intestinal antiseptic. Probably in the majority of these cases a dose of calomel and soda is a good thing to start with, and after this I have employed a mixture of salicylate and benzoate of soda, gr. $\frac{1}{2}$ -1 of the salicylate and gr. 4-10 of the benzoate, three times a day. In a good many cases, for a while at least, I have used along with this a powder containing gr. 1 of mercury with chalk and grs. 3 of bicarbonate of soda. In the majority of my cases I have found it advisable to follow this treatment by a course of some bitter tonic, using now the bitter wine of iron, now the co. syr. hypophosphites, and again a combination of hydrochloric acid, nux vomica, and essence of pepsin, and in some instances, particularly where the breath was offensive, I have found that small doses of chlorate of potash internally would be followed by more prompt improvement than anything else.

With this brief, and I hope not tedious summary of the subject, I wish, by the relation of a few of the numerous cases from my note book to give to this paper the practical turn which was my intention in writing it.

CASE 1. E. G., aged 3 years, was seen by me in June, 1906. She appeared a well nourished child, and lively, but of a distinctly nervous temperament. It appears that some six or eight weeks before I saw her she had begun to exhibit a remarkable change in disposition. She had frightful "night terrors," from which she could be aroused only with the greatest difficulty. She grew suspicious and nervous during the daytime running away and hiding at the approach of any except her immediate family. If she was taken into the street she clung to the hand or dress of her companion, and if they got into a street car she went into perfect agonies of terror and screaming, so that in order to give her some fresh air in the park her parents were obliged to walk the entire distance and follow a roundabout course lest she be frightened by seeing the cars. Her appetite was capricious, but she showed no actual disturbance of digestion, except a moderate costiveness. The family physician was consulted, but he gave little heed to the matter, ordering a simple purge, but attempting no systematic treatment for the permanent relief of her condition.

A careful examination of the child showed that there was no organic trouble, and that she was not an instance of any of the juvenile forms of mental disturbance. But in the course of the investigation the urine was found to be loaded with indican. I became convinced that this was an instance of intoxication from intestinal putrefaction, acting upon an unusually excitable nervous system, and immediately began a course of treatment upon the lines already laid down. Without burdening you with details, this resulted in rapid improvement, and in a few weeks in the complete disappearance of the whole train of symptoms.

I saw nothing more of this child till May 23, '07, when she was brought to me with the statement that she had begun to have a return of her former symptoms, showing night terrors, peevishness, causeless fright and suspicion of her surroundings during the day. Lately she had been rather costive requiring frequent doses of castoria to move her bowels. The urine was loaded with indican. She was put upon appropriate treatment and by May 27 the more severe of her symptoms had subsided but she was still rather fretful, and restless in her sleep. The indican had diminished decidedly in quantity. Her improvement was progressive, and in a few weeks more she was reported to be entirely herself again.

CASE 2. H. D. D., 8 years old, was seen by me on Dec. 27, '07. She has always been a sweet tempered child till recently, when she began to feel badly. She has lost considerable flesh, has very little appetite, sleeps poorly, is pale, listless, cross, and cries at the slightest thing. This is such a reversal of her normal condition that her parents are much disturbed about it.

She has no fever, has had no recent illness, and there is nothing abnormal about any of her organs, but an examination of the urine shows a great excess of indican.

The usual treatment was at once instituted, and on Jan. 3, '08, she was reported to be a little better, and to have developed a slight appetite. The indican is considerably diminished.

Towards the end of January she developed a severe attack of grippe, which pulled her down a good deal, and retarded her recovery, but on March 20, '08 she was "in excellent condition." sleeps well, is good humored, and has a fine appetite.

CASE 3. D. B., age 6 years, was brought to me on April 16.

'08, on account of the relief given his cousin, whose history has just been given. He is rather thin and slender for his age, and he has the facies of adenoids. (A subsequent examination by Dr. Gordon King confirmed the presence of both adenoids and enlarged tonsils.) He weighs $36\frac{3}{4}$ lbs. He is subject to repeated attacks of indigestion, always attended by some fever, and his complexion is rather sallow. Of late his disposition has undergone a marked change. He is restless at night, his appetite is capricious, and he bursts into tears upon the slightest provocation. The urine is loaded with indican. He was placed upon a strict diet, excluding meats and sweets, and buttermilk was given in place of sweet milk for a time, but he soon rebelled against the last, and the fresh milk had to be allowed. The usual antiseptic medication was ordered, and with some ups and downs, he steadily improved, and on June 3, '08, I find in my notes that he weighs 39 lbs., has a good appetite, has resumed his normal disposition, and sleeps well at night. All of which was a great relief to his parents who had suffered much from his peevishness and irritability.

CASE 4. Catherine C., age $5\frac{1}{2}$, was brought to me on April 29, '08, on account of an unnatural fretfulness and disposition to cry, which was a complete reversal of her normal disposition. In appearance she is the picture of health, rosy, clear skinned, and well nourished. Her appetite is good and she sleeps well at night. Her father appears to have been more profoundly impressed by the change in her character than the mother. He assures me that in her normal state the child had been remarkable for the blithness of her disposition. Indican was found in the urine in large quantity, and appropriate treatment at once instituted.

On May 12, '08, the indican had almost disappeared, and there had been decided improvement in her condition, although she is reported to be still lacking in that "*joie de vivre*" which had formerly been her characteristic. On this date a tonic of comp. syr. hypophosphites was ordered, and on June 1, '08, she was discharged well, her father assuring me that in his opinion there had been almost a complete restoration of her former abundant spirits.

CASE 5. Thelma I. Seven years old, was brought to me on March 15, '07. This child is very "nervous." She will not study, but seems bright enough in every other way. She has frequent headaches. Has suffered all of yesterday and today. Has had twitchings of the face for several months, but they have subsided during the last two months. There are now no signs of chorea. She has very bad teeth, and has lost several of the milk teeth, the second set replacing them very slowly. Only one of the permanent upper central incisors is out, and it looks like a Hutchinson tooth. There are no other evidences of specific taint. Her bowels are rather costive, she sleeps badly, and has a very violent temper, using the most horrible, profanity when in one of her outbursts. This is a comparatively recent development. The urine contains a large quantity of indican. Appropriate treatment was instituted, the diet regulated, and on March 18, her mother reports that she seems better. Her sleep is more quiet, she does not have as many nor as violent explosions of temper. Still a considerable quantity of indican.

March 25, '08. Mother says she finds a great improvement in the child. She sleeps all night, she is more amiable, and gives way very much less often to her ebullitions of anger. Indican only barely perceptible.

As a side light, in connection with the suspicion of Hutchinson's teeth, a note may be introduced in regard to the child's sister, who was brought to me on March 20, '08, on account of an ulceration over the region of the right tibial tuberosity, which had persisted for two years. The bone was lanced twice or three times, and all kinds of local treatment had been without effect. I immediately put her on "mixed treatment," and on May 10, '08, the ulcer was entirely healed.

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DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DR. S. M. D. CLARK read a paper entitled

“ECTOPIC GESTATION, WITH SPECIAL REFERENCE TO THE PROPRIETY OF DEFERRING OPERATIONS IN SPECIAL CASES.”

(Manuscript not furnished Publication Committee.)

DISCUSSION.

DR. E. D. MARTIN: The subject is well worthy of our consideration. If we will consider for just a moment the condition that exists after rupture, we can see that we are not likely to lose our patient from hemorrhage. As soon as the tension is relieved and agglutination takes places the flow will usually stop. If the patient has suffered greatly from shock, or is in bad condition, it would be almost necessarily fatal to operate while she is in that condition. If given a little time she will recover her strength sufficiently to operate. Some years ago I saw a young woman who had a rupture. Her condition was such that I concluded there was nothing to do. The next morning I found her pulse fairly good, and prepared to operate. The greatest danger is that of overstimulating the patient. They need nothing but water by the mouth, or enema. If you stimulate too much you may raise the blood pressure and have secondary hemorrhage. In the case referred to the patient had a pulse of 150 when we began to operate. As soon as she was anesthetized, the infusion being kept up, the abdomen was opened and I clamped the broad ligament. This woman made a very happy recovery. This is the only experience of the kind I have had.

DR. CHAVIGNY: I had one case that went to a point where if delivery had taken place we might have had the birth of a living child. Another case I consider of great interest was that of a woman who from her appearance had gone beyond the normal period. I believe she would have been delivered of a normal child if she had been operated upon in time. The child, when

removed, was well nourished, and was a good specimen of a fetus. Six of the cases I have had were cases that presented themselves before the time of normal gestation. The diagnosis was made and they were operated upon with the result that the patients got well without serious trouble, except one. I had two other cases of interest; both cases were ruptures in ectopic gestation. In the first, the patient was so excited and shocked that operation was deemed inadvisable. The patient died within eighteen hours after her first symptoms. In each of the two cases I was able to hold a postmortem. The postmortem showed the blood clots not organized. The second case was one in which a mistake was made by the attending physician as to the cause of the trouble. The Doctor took it for an abscess of the pelvis. He went through the vaginal wall and made an incision. They changed Doctors. I saw the case several days after this, when she showed signs of hemorrhage. She was in a very bad condition. I waited but she did not improve, but grew weaker. The family were worried and insisted upon an operation. I operated in extremis, but the patient succumbed, as was rather anticipated.

DR. GELBKE: I saw the case of a woman who gave all the signs of ectopic pregnancy (ruptured) about two o'clock in the morning and when I reached her bedside, I found her almost pulseless. We removed her to the New Orleans Sanitarium about eight in the morning, and intended operating at once. In the meantime, she began to pick up. About eleven o'clock a. m., she suddenly began to get worse and was almost exsanguinated; we operated. She grew so much worse that she was practically dead when we did operate; immediately after securing tube, patient was transfused. She made an uneventful recovery. In these cases of rupture it is a difficult matter to state when to operate. I believe the quicker, the better, because we do not know the exact amount of bleeding, and if there is evidence of hemorrhage being stopped, we can not tell when it will begin again.

DR. BARRIER: I want to report a case of ectopic gestation, or, rather, a case I thought was a case of ectopic gestation. My old professor asked a young man what he would do if he were called in to see a patient, and he said "I would send for a Doc-

tor." After waiting ten days, I thought the best thing to do was to send her to a Doctor. After twenty-four or thirty-six hours the Doctor sent her back with a letter to me, as follows: "I return your patient. There is nothing the matter with her but a slight indication of threatened abortion. That was about two months ago and the patient has been getting along remarkably well since then.

DR. GREMILLION: I read the article to which Dr. Clark alludes and at the time I was strongly impressed with the arguments he brought forth for temporizing in these conditions. To my mind, the most difficult thing to decide is when to operate. I do not know of anything that taxes a man more than to have one of these cases under observation from moment to moment and from hour to hour and be on his guard to operate at any moment. A few months after this article, Dr. Levinsky wrote an article in answer to it in which he suggested that in all cases where we suspect rupture with symptoms of hemorrhage, that they be operated upon immediately. He reported cases in dying condition, so low that they operated without anaesthetics, that were operated on and were saved. As we become more acquainted with the abdominal cavity and how to operate there, we will go in as soon as we suspect hemorrhage, and do as we do with hemorrhage anywhere else, that is, ligate the artery and stop the hemorrhage.

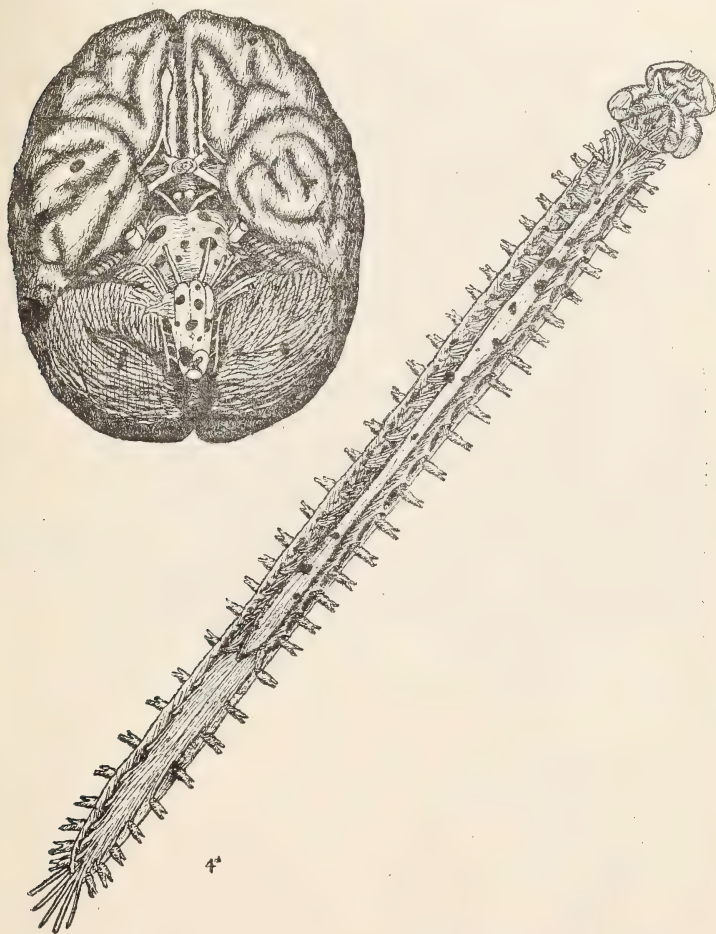
DR. E. M. HUMMEL, of New Orleans, read a paper on

The Pathology and Symptoms of Multiple Sclerosis.

The dreadful prevalence of multiple sclerosis in our section is my apology for bringing before you the discussion of this subject, which, probably, under other conditions would scarcely prove of interest to those not specially interested in nervous diseases.

By way of preface, it may be remarked that I am discussing the only two phases of this disease of which we have any definite knowledge, for as yet we have been able only to speculate about its cause and so far no treatment has been of avail.

Upon microscopic examination of the cord and brain of a sclerotic, we find distributed throughout the nerve substance oval or round patches of sclerosed tissue. These spots occur apparently by selection in the pons, peduncles, medulla and cord (posterior and lateral columns especially). though they are found, but less frequently, in the gray substance of the cerebrum and cerebellum.



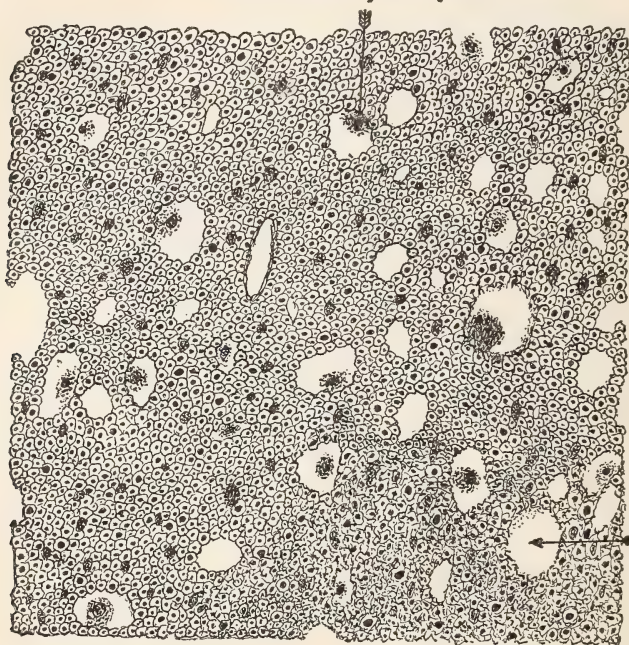
Cut of Cord and Brain Showing Usual Distribution of Sclerotic Foci.

For some reason the disease attacks the cerebro spinal axis, *i. e.*, the fiber tracts, with greatest frequency. However, a given spot invades contiguous gray substance by extension apparently with

equal facility as it began in the white fibre tracts. So that upon cross section of the cord, medulla or pons, we find the sclerosed area taking its customary oval or spherical shape regardless of either kind of nerve elements encroached upon. The optic nerve being essentially a medullated fiber tract is involved with equal frequency, as the fiber systems elsewhere. When a focus hap-

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Cross Section of Axis Cylinder.



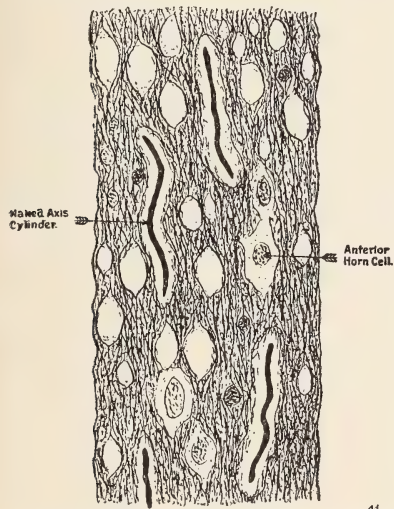
Empty Space,
after Absorption
of Degenerated
Elements.

Cross Section of Cord fiber tract, showing degenerated fiber sheaths, with persistence of axis cylinders; and overgrowth of glial cells (greatly magnified.) DR. HUMMEL'S Paper.

pens to be situated near a nerve root it may by extension encroach upon the emerging trunk and extend some distance out upon the trunk proper, or incorporate one of the posterior ganglia. Whether the distribution of the lesions signifies that the blood supply of the white substance is such as to determine the greater prevalence of the foci there, or whether the fiber paths are attacked through selective affinity for the causative agent, is a matter of conjecture. The sclerosed foci first attract attention by the grayish or grayish red discoloration characterizing them. In size they vary from that of a pinhead to half an inch in diameter, or by the confluence of several spots the area may cover a

whole cross section of the cord or pons. At first the tissue is elevated above the normal contour, but if process be of long standing, may be contracted and depressed. Upon observation with the naked eye the spots seem sharply defined.

Microscopic examination of the altered tissue reveals two characteristic changes, viz—the overgrowth of glial cells and degeneration of the medullary sheaths—as a result of which the axis cylinders are left bare. The axis cylinder in the lesion is not changed as a rule until late, and then secondarily. The same may be said of the neurone cells. In this way is the fact easily explained that neither ordinary secondary degeneration of fiber tracts nor muscular atrophy takes place as a regular sequence. The blood vessels are often found dilated and their walls thickened. Rarely in acute or sub-acute cases all the nerve elements and sustentacular tissue may be utterly destroyed, in which event secondary degeneration and abolition of function of the parts involved does occur. The limited local character of the changes, persistence of the axis cylinders and cells, overgrowth of glial tissue and absence of secondary degeneration typify the pathology of multiple sclerosis. Whether



Illustrating longitudinal section through Spinal Cord Tissue of Multiple Sclerotic (greatly magnified.)

the changes are truly inflammatory in nature, or whether primary degeneration results from the presence of some deleterious agent causing loss of the fiber sheaths and setting up irritation which provokes proliferation of the glial cells and secondary inflammatory changes, has never been determined.

It is the aim of modern neuropathology to explain all symptoms in terms of material changes in tissue structure. At first there seemed to be a marked disparity between the pathology of this disease and its symptoms, and little hope of formulating a uniform symptomatology, but after better knowledge of the hys-

tological changes obtaining in the lesions the symptoms and pathology have been perfectly reconciled.

I have purposely referred to the pathology first in order to be in a position to explain several points in relation to the symptoms. While the sclerosed foci constituting the pathology of multiple sclerosis are found with a certain constancy along the cerebro spinal fiber axis, as previously remarked, they are at times to be seen in the cortex and subjacent white substance. Just how the foci will be distributed in these various structures seems to be a matter of chance. Their number and size are determined by the severity of the attack and the duration of the malady. Upon histological investigation of the sclerosed area it is found that the changes are limited essentially to fiber sheaths and glial cells—as mentioned above, while the essential elements are left practically intact. This, of course, means that the respective functions of cells and fibers will be perverted, perhaps, but **not** abolished. The numberless ways in which the spots may be distributed may give rise to an endless variety of symptom combinations. But, inasmuch as the main manifestations of this condition are to be interpreted as partial interruptions in fiber conduction of motor and sensory impulses, and, inasmuch as the foci are nearly always situated centrally from the lower neurons controlling the muscles affected there is preserved a certain constancy in symptoms; and these are nystagmus, intention tremor, and spastic paresis of the extremities, especially the legs. Exaggeration of the deep reflexes, hypertonia and clonus are phenomena of similar significance. Somewhere in its course from the cerebrum to the cell of the peripheral neurone the impulse is impeded or shunted—shunted, perhaps, because the medullary sheath which probably performs the function of insulation, having been dissolved, the naked axis cylinders are allowed to lie in contact, which would permit impulses travelling along these, to miscarry. In the light of these explanatory facts we will proceed to enumerate the main individual symptoms.

As remarked above one of the cardinal symptoms of the condition is intention tremor. This is observed notably in the upper extremities, and then upon attempts to perform acts requiring fine co-ordination of muscle movement or the output of much

power. Nystagmus, another cardinal sign, is nothing more than an intention tremor of the external eye muscles. In well advanced cases we nearly always observe a spastic paresis of the lower limbs. Just how the muscles or muscle groups will be involved depends upon the location of the lesions, which as we have learned are developed indiscriminately.

The interfering lesion being nearly always to brainward of the anterior horn cell groups of the lumbar cord controlling movements of the lower extremities, the functional disturbances are characterized by exaggeration of tonus and heightened reflexes, with sometimes contractures, seldom flaccid paresis and wasting in these parts. The patella reflex is nearly always much exaggerated, and patella clonus is frequently observed. Exaggeration of the ankle jerk and foot clonus are seen with equal frequency. The Babinski reflex is a frequent sign. Spastic paresis is often combined with a certain degree of ataxia, indicating involvement of the posterior columns. The ataxia is unlike that of tabes in that the gait is wobbly and swaying—cerebellar type—and in that the ataxia is not markedly increased by closing the eyes. These various symptoms may be limited to one side, if the focal distribution happens to be so limited. What has been said of symptoms in the lower extremities also applies to the upper—with the exception that in the latter instance the involvement is less profound and more frequently one sided. In severe cases, however, spasticity with contracture and almost total paralysis does occur. Charcot observed atrophy of the small muscles of the hands and other phenomena suggesting amyotrophic lateral sclerosis or the other muscular atrophies.

In advanced cases visceral disturbances are observed, viz:—dysuria, retention and incontinence of urine. The rectum is similarly, though less profusely, affected. In a case of my own intestinal torpor with flatus, obstipation and putrefaction is very troublesome.

Sensation is less involved than motion, but paresthesiae, such as burning, formication, numbness, and even dull pain, are frequently felt, but as symptoms these are not persistent. Trophic disturbances are rare except in terminal stages.

In about one-third of the cases the optic nerve is involved. Optic neuritis, even choked disc, are sometimes found, but most

often there are only irregularly distributed spots of pallor in the eye ground, and these are apt to be uni-lateral. Again, the disturbances of sight are not in keeping with the ophthalmoscopic findings. Sometimes with pronounced alterations in the retina sight is slightly disturbed only. Scotomata, dim vision, alterations of the color sense are the usual disturbances of sight. According to Redlich marked disturbances of vision, sometimes complete temporary blindness, may precede other symptoms of multiple sclerosis by years.

Paralysis or paresis of the external muscles of the eyeball are quite often seen. In early stages this is apt to be temporary, but in one of my cases the left abducens has remained paralyzed for years. Nystagmus, as we have remarked, usually indicates paresis of the ocular musculature. Disturbances in the **innervation** of the pupil is a rare manifestation giving rise to mydriasis or myosis; but the light and accommodation reflexes are rarely disturbed.

The other cranial nerves may be caught in the sclerosis, and in this connection may be mentioned one of the characteristic symptoms in advanced cases—speech disturbances. Articulation may be disturbed in various ways, but the most frequent phenomenon is what has been termed scanning speech—a condition in which the patient gets out his syllables in a slow, droll manner in a monotonous pitch of voice. Paresis of the vocal cords may impart to the voice an egophonous character. Syllable stumbling and explosive effort at speech may be also observed.

Finally we will mention cerebral and mental manifestations caused by foci in the centrum ovale and cortex. Persistent headache and partial or general convulsive seizures sometimes take place in the early stages of the disease. The seizure is apoplectic in nature, leaving parietic symptoms in its wake. In two of my six cases selected from which to draw a composite picture, there are pronounced mental symptoms. In one instance there is a decided euphoria closely simulating that of general paresis. With this optimistic frame of mind there is confusion and loss of memory. The other, a less advanced case, shows a certain irascibility and disposition to contradict everything said to him, with occasional states of confusion and stupor. A third case has sustained an attack of excitement with hallucinations, but is now mentally nor-

mal. Explosive fits of laughter, crying or other emotional expression are sometimes seen. Many cases terminate like general paresis in secondary dementia, and a wiping out of old personal characteristics.

The terminal stages of multiple sclerosis are not very different from those of many chronic nervous diseases. After a period of several years, during which the patient has passed through many fluctuations and changes of the symptoms, but with an average steady progress toward helplessness, he becomes bed-ridden with spastic paresis of the extremities and loss of control of the bladder and rectum, eventually succumbing to some intercurrent malady, or from exhaustion.

DR. J. G. MARTIN, of Lake Charles, read a paper on

The Anatomy and Physiology of the Thyroid Gland.

As those who follow me have promised to take up in detail, the anatomy and physiology of the thyroid gland I will not discuss this subject. I will however, take up for a few minutes the anatomy and physiology of those glands, which, though functionally different, anatomically are so closely connected with the thyroid gland that they must be described together.

I alluded to the para-thyroids. Sandstron, in 1880, discovered small glandular masses lying in close relation to the posterior surface of each lateral lobe of the thyroid gland. These he named para-thyroid glands.

In size they vary greatly; their average long diameter being about a quarter of an inch and their average thickness about one-eighth of an inch. They are somewhat bean-shaped with a hilum where the artery enters. Most of the glands are of a reddish brown color due to their being very vascular.

Each gland is composed of solid irregular masses of epithelium-like cells arranged in columns. These columns of cells anastomose with each other. The para-thyroid is absolutely different from the thyroid and is not like an accessory thyroid. Each para-thyroid has a separate and distinct capsule similar to that of the thyroid but very much thinner. All recent observers are agreed that these organs are separate and distinct glands and have a different function from the thyroid gland.

Four is the usual number of para-thyroids in the human body; there may be only one and as many as five have been found.

The para-thyroid glands are generally located on the posterior surface of the capsule of the thyroid glands. They are outside its capsule and closely adherent to its surface. The superiors are generally located on a level with the cricoid cartilage, while the inferiors are more varied in their location; their usual position being within one-half inch of the lower border part of the lobe of the thyroid gland.

The para-thyroids are always supplied by a special para-thyroid artery. This artery supplies the gland and nothing else. It is always a direct and separate branch of the thyroid arteries or one of their main divisions. At times two or more arteries are seen running to the gland, but only one enters it; the others supply the surrounding fatty tissues.

The superior para-thyroid artery may be a branch of the superior thyroid artery, but not always. The inferior para-thyroid artery is always a branch of the inferior thyroid artery.

Function—Although we have no exact knowledge of the function of these glands, we know that injury to them or to their blood supply causes great disturbance or even death. We must therefore, recognize them, preserve them, and keep their blood supply inviolate. That they have a function we have no further reason to doubt. It has been shown by a number of observers that when the para-thyroids are removed in dogs, death results in three days from tetany. Destruction of the thyroid gland alone produces disturbances of metabolism which gradually lead to myxedema. Destruction of the para thyroid glands alone produces acute fatal tetany. This tetany can be relieved for a short time by bleeding and saline infusion, thus leading one to believe that there is a condition of toxemia.

All recent writers agree that tetany and death must result from the removal of all para-thyroids. The destruction of the blood supply causes the same fatal result.

In the majority of cases the tetany following operations for the removal of all, or part, of the thyroid gland, is not due to the removal of the para-thyroids themselves, but is due to the destruction of their blood supply. Halsted states that tetany sometimes results even from the ligation of but one thyroid artery.

For this same reason Kocher advises that two thyroid arteries should never be tied at one sitting and that never more than one-half of the thyroid gland should ever be removed, except to meet some special indication.

DR. I. J. NEWTON, of Monroe La., read a paper on

Practical Points in the Diagnosis and Treatment of Skin Diseases.

In accepting the chairmanship of this section, I was fully aware of the fact that I was not competent to handle this subject in the full demands of this class and type of diseases, but thought it would afford me an opportunity in the study of this much neglected and little understood subject, especially upon the part of the general practitioner, and thus fit myself for the duties devolving upon me.

However, after considerable expenditures of moneys upon the literature of this subject, and many hours and days of investigation and reading, I have been forced to the conclusion, that I would be compelled to withdraw from any effort to bring this subject before you in a scientific manner, and have, therefore, concluded to occupy a brief part of your time in presenting a few points upon the practical diagnosis and treatment of that division of dermatological manifestations of disease as concerns more particularly the general practitioner in his work along this line. I am tempted to declare with an old author, Watson, I think, that skin diseases are of three kinds: one that mercury cures, one that sulphur cures, and the other the devil himself can't cure. However, I have thought it better, to call your attention to various practical points, which experience has shown of importance, in the management and treatment of this class of diseases. I trust to be excused by you if my presentations prove to be trite and common-places, already quite familiar to your knowledge of the subject.

Dermatology, speaking from my individual observation and experience, is and has ever been, considered a branch of medicine, wholly repugnant to the general practitioner, yet in view of its wide-spread prevalence, it becomes quite important that the gen-

eral practitioner should become intelligently familiar with its phases, causes and treatment, thereby increasing his usefulness and being able in many instances, to afford relief and cure to those who are suffering intensely from an affection, not always within the opportunity to confer with the specialists. In order to fully comprehend and to successfully treat this class of diseases, one must give close attention to the most minute details of investigation. There is nothing in skin diseases, that is so very peculiar and different from the peculiarities and manifestations of other diseases. Practically they come under the frequently announced statement of being only local manifestations of constitutional disorders.

From this standpoint, one should observe the strictest inquiry into the personal and family history of every case, determine any and all abnormalities of the skin, investigate and estimate every physiological function of the various body organs, determine remote as well as immediate probable etiological factors developing from the presence of disease other than local skin demonstrations. It is also of the greatest importance to examine each and every portion of the affected surface, determining the primary, as well as the secondary lesions, this frequently enabling one to correctly classify the affliction.

In such examinations, always use in connection with the normal eye estimates, the aid of a good magnifying glass.

In all malarial districts, inquire most carefully for evidences of this etiological factor in producing affections of the skin. In this connection blood examinations should in every case be determined. Inquire carefully for periodical evidences of symptoms, especially as to the time of intensest itching—or neuralgic pains or other symptomatic indications. In this connection I have often seen the most intractable forms of eczema as well as others of the more common types of skin affections, readily and kindly yield to anti-malarial treatment.

The so-called strumous diathesis is present in a causative nature in many forms of skin affections and unless properly estimated and appropriately treated, only failure to benefit or cure, will follow the measures of treatment otherwise instituted.

The various toxemias are prolific sources of causes in the de-

velopment of skin diseases, especially is this the case from the intestinal and hepatic varieties.

In making a diagnosis of skin diseases, the possibility of its being due to or influenced by syphilis should always be considered, also the various parasites that so frequently infect the skin may have secondary local infections in attendance, caused by infection from scratching with finger nails as well as by other means.

Climatical and seasonal influences frequently are responsible for the persistence of skin affections, as is so often evidenced by the rapid disappearance of skin lesions notwithstanding an appropriate or seemingly correct diagnosis and treatment, upon the advent of frost in the autumn or the heralding of spring in its season.

Passing, thus briefly, upon a few points essential in the proper investigation of skin diseases and there are many other etiological factors that could be cited, I will merely state under the head of treatment that pre-eminently first to be considered is the primary cause and its proper elimination, however, while a correct diagnosis is of the utmost importance, treatment is not wholly to be considered from this standpoint. Some skin diseases are local in character and, therefore, removable by local measures, but in the general subject of treatment we should assume the two aspects of constitutional and local conditions.

I will briefly notice a few points in both, rather to invite your attention to principles than to measures specific, not entering into the treatment of particular diseases, except for illustrations. Aside from the therapeutic and general indications to be observed in the treatment from the constitutional phase, diet is of first and greatest importance. Although definite and positive statements in regard to the relation of diet to many skin affections has not been determined, yet a practical working basis can be estimated. Therefore, diet must be determined in several divisions, such as limitations in quantity, character, manner of cooking, time of administration, etc.

Bathing, with reference to frequency, nature of baths, as to temperature, time of day, chemical character, etc., of importance to estimate.

Alcohols, tobacco and other drug addictions to be correctly estimated and managed.

The internal medical treatment presents many practical points, but time forbids their inclusion in a brief paper. Careful quantitative and qualitative analysis of urine, to determine the manner that the metabolic processes are carried on, offers valuable indications for determining the nature of internal treatment.

Hepatic and intestinal conditions should also be carefully estimated in order that proper internal medication may be correctly determined. I cannot go into the details of internal medication, notwithstanding its great importance and I trust that you have seen that it is to the constitutional causes that I especially desire to emphasize in the estimate of the character of skin diseases, and, therefore, necessarily a proper internal medication is very essential, in fact absolutely necessary. You will pardon me for not taking up local measures of treatment, as I have not seen fit to discuss any of the individual diseases as to their local aspects. Will say, however, in conclusion that on deciding on any local measures, you should first estimate well the condition of the local area to be treated. You must determine whether or not your local measures are to be of an astringent, stimulant, emollient, anti-pruritic, absorbent, or anti-parasitic, etc., etc., or of several of these combined. Also determine the character of your local measures, best suited to the case, *i. e.* as to whether or not in the form of powders, ointments, lotions, etc.

In fact to properly treat diseases of the skin, one must be careful and accurate in diagnosis and thoughtful and resourceful in the selection of remedies or decisions of management in general.

DR. E. DENEGRÉ MARTIN, of New Orleans, read a paper on

The Present Status of Vesico-Vaginal Fistula.

Until very recently surgeons and gynecologists were adhering more or less to the rules laid down by Marion Sims for the treatment of vesico-vaginal fistula. This condition is so annoying to the unfortunate women who are afflicted with it, that any relief from the distressing symptoms it produces, is a boon to the sex. It is, as we know, an abnormal opening between the bladder and vagina, produced usually by mechanical injury resulting in a sloughing of the tissues. The common cause is delayed labor where the

pressure of the fetal head destroys the circulation and thereby causes a sloughing of the tissues, involving the entire thickness of the septum between the bladder and urethra on one side, and the uterus and the vagina on the other. As Emmett has very truly said, "the condition, as was once thought, is not due to the application of forceps but rather to the delay in their use"; as by this means we prevent impaction of the head, and though the application of the forceps may result in laceration, the vitality of the parts is not destroyed and this can be easily restored by operation, or may heal without interference. Other causes, though not so common, are the sloughing through of a stone in the bladder, the use of an ill-fitting pessary, radical operation for hysterectomy, or the prolonged use of the catheter for the cure of cystitis, and occasionally, the breaking down of cancerous tissue. The diagnosis is easily made, the patient usually noticing the constant dripping of the urine, seeks relief. The success of operation in these conditions depended originally on the location of the fistula, the amount of scar tissue present and the relaxation of the parts. I believe, however, that without our present knowledge and experience many of the cases which were looked upon as almost incurable can be operated upon today with a certainty of success. It is interesting to look back upon the history of this condition and to know that as far back as Hippocrates it was recognized, as he describes a case in which after a protracted labor urine escaped from the vagina. Mauriceau, as far back as 1714, alluded to the condition as incurable unless it healed spontaneously. Smellie, in 1776, refers to an unsuccessful operation. Burns, in 1820, strongly urges the propriety of operating, but describes no plan of action. James, Professor of Obstetrics in the University of Pennsylvania, in his system of mid-wifery, published in 1813, bases the hope of a cure on the use of an elastic catheter, caustic, and vivifying the edges with a knife. Gooch, in 1831, reports a case cured by the use of a gum bottle with a sponge attached inserted in the vagina in such a manner as to keep the sponge applied to the opening. As late as 1866, nearly all obstetricians were of the opinion that this condition was incurable. Surgeons shared the same opinion. Liston considered all operations as useless, in fact, worse, for by an attempt at operation all small openings were converted into larger

ones. Earle, Lawrence, Miller and Velpeau looked upon operation as useless. In 1839-'40, Dr. Hayward, of Boston, succeeded in affecting three cures in twenty operations. In 1847, Pancoast reported two cases cured by tongue and groove incision held with silk thread, and in the same year Mettauer, of Virginia, reported a cure with a suture of lead wire. It was not, however, until 1852 that Marion Sims, then a resident of Montgomery, made this operation feasible and successful, for which every suffering woman owes him a debt of gratitude. The principles laid down for the operation by Sims are practically unchanged today, though the technic is somewhat different. He first suggested the enlargement and exposure of the cavity of the vagina by the use of his duck-bill speculum. Secondly, he used silver wire, and thirdly, suggested the employment of self-retaining catheters to drain the bladder and to keep the wound free from urine. It is true that nearly all of these methods had been employed by others, but never in a systematic manner. To Sims is due the honor of improving and applying them in a practical and consistent way.

The present status of vesico-vaginal fistula is not the result of the work of any one man, but rather the culmination of the work of many, tending more or less in one direction and is especially due to the knowledge of the fact that the bladder can be easily dissected from its attachments without any harmful results.

Kelly, in his work on gynecology issued in 1898, in describing some of the numerous methods suggested up to that time sounded the keynote of the situation when he prefaced his remarks by stating that he wished to dwell particularly on the fact that we were able to detach the flexible bladder from the rigid vaginal walls, and this is the point I wish especially to emphasize. With this assured fact, the operations for special cases as suggested by Martin, Trendelenberg, Dudley, Jobert, Emmett, and many others, will be greatly simplified.

My attention was first called to the rapid and perfect closure of vesical fistulæ some years ago when I noticed, in several cases where the bladder had been perforated in vaginal hysterectomy, the apparent ease with which these fistulæ had closed. My personal experience for the past two years in operations for prolapsus and vesicocele and a familiarity with the so-called trans-peritoneal

operation of Mayo, were evidences of the fact to my mind that the bladder could be manipulated almost at will both through the vaginal and the abdominal route. Fortunately, today vesico-vaginal fistulæ are growing less common, owing to the improvement in obstetrical work, but the condition is, nevertheless, frequent enough to demand the surgeon's attention. The technic is simple, but only by those who have had a personal experience in operating can the difficulties be fully appreciated. Three things are essential: First, the operation must be done under the most favorable aseptic conditions, all cystitis or erosions of bladder, cervix and vagina should be cured before an effort is made to close the opening. The vesical mucosa must be freely dissected from its bed, the scar tissue removed and the vesical walls made sufficiently flaccid to overlap without tension, and third, drainage and asepsis must be maintained in order to assure success; and last, but most important, the ureters must be located, so as not to include them in the sutures.

My personal experience is limited to seven cases, the first four of these required two operations each, as I adhered to the method laid down at the time. In the light of our present knowledge, I believe these cases could have been successfully operated upon the first time.

As far as the technic is concerned, I have only this suggestion to make,—as it is not clearly brought out in the latest works on gynecology, although they deal fully with the subject,—that is, I believe that in all fistulæ whose long diameter is half an inch or more, a double row of catgut sutures should be placed in the vesical mucosa and the vaginal mucosa closed separately, when the tension is not too great, with fine silver wire, or silk worm gut. I think the greatest advance made in this operation is the principle applied in all plastic work today, that is to relieve the tension on sutures; whenever this is done the results will be good.

DISCUSSION.

DR. CHAVIGNY: As stated, it is an established fact today that in this condition it is necessary to separate the bladder from the vaginal walls. The difficult point is to be able to separate the bladder from the vaginal wall. Having done that, the ureters must

be taken care of, as he suggests. The most difficult thing is to separate the bladder from the vaginal wall. A sponge will be of benefit here, just as a little sponge will be of benefit when used as suggested by Dr. Clark. With a sponge you can more readily separate the bladder from the vaginal walls. Without the use of the sponge I have found it very difficult to do so, as the parts are so slippery. The sponge gives you a sort of surface to act upon.

DR. CLARK: I think there is no question but that in the past five years we have made great advances in treating these fistulas. Up to then we had been following the old teaching of trimming the edges. I am sure that fistulas that six years ago would have been considered inoperable would now be considered easy operations. The whole purpose of the operation is not to get tension on your sutures. If you have tension you will not get results. If you support the bladder from the vagina you will get results. The point about the ureters is very important. Sometimes where there is difficulty in finding the ureters, it may be well to catheterize and remove the catheter as soon as you have them well identified.

Orleans Parish Medical Society Proceedings.

President, DR. AMÉDÉE GRANGER. *Secretary*, DR. C. P. HOLDERITH.
141 Elk Place, New Orleans
In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.
DR. HOMER DUPUY and DR. S. K. SIMON.

MEETING OF JULY 25, 1908.

DISCUSSION OF DR. BATCHELOR'S PAPER.

DR. JOHN OECHSNER: Uniformly good results have attended the operation of opening the joint under strict aseptic environment, and suturing the patella in the treatment of fractures of the patella. We should relegate splints to the past. The open suture method is the recognized treatment of the present day. Nevertheless, several general practitioners continue to treat these cases by means of splints. Regarding the method of treatment, the open suture operation is now on a sound foundation and its

value should be recognized. The use of foreign material for the co-aptation of fragments should be abandoned.

I fully agree with Dr. Batchelor that drainage should not be resorted to unless there are special indications for its employment. I disagree with him as to the use of Hg Cl_2 solution. Why not use normal salt solution?

There are two points I would like to call attention to: 1st. Massage, particularly to the quadriceps extensor femoris, is a most valuable adjunct in the treatment of this form of fracture.

It can be practiced very early, and with gentle, passive motion, starting as early as the 12th, 13th or 14th day. 2nd. Permeability of the callus to the X-ray. In cases 5 or 6 weeks after operation, when the fragments are in perfect apposition, there may exist an apparent interval between the fragments in a radiogram. This condition shows for quite some time after operation. At the same time, however, there will exist normal function. I dwell upon this so as to put the operator on his guard. Radiographs should not be shown patient, as he may have misgivings as to the correctness of the treatment. This is an extremely important point, and one worthy of notice.

DR. WALET: Have had three cases of fractured patella; and my first experience was shortly after leaving the Hospital. In the first case I used silver wire, as you know the method then in vogue was wiring. The operation in this case was performed in the following manner: I drilled two holes in the fragments and then introduced two wires and drew same together. The drill used was one of an old French type, the name of which I am unable to recall. The operation was performed at New Orleans Sanitarium, and it was at that institution I secured the drill, which answered my purpose most satisfactorily. Made provision for drainage, as there was fever. The patient weighed about 200 pounds and was drunk at the time he sustained the accident. His leg had been previously removed because of an accident before fracture of the patella. I saw him about two months ago, drunk again, but results were good. As to period of operation, I will say that this case was operated upon on the 12th day after the accident, when acute inflammatory symptoms had fairly subsided. The result was very good—I may say ideal. One case was operated on at Touro within 24 hours of accident, no drain and results perfect. The

last case was six months ago. Patient in the ice business; operated also within 24 hours; had functionally very good results. No inflammatory condition followed in any of my cases. In that respect, I was fortunate. For irrigation in the first case I used sterile water. In others normal saline solution. As to manipulations, I remember particularly how Dr. Matas dwelled upon the point not to put the finger in the knee-joint. As to this, I will say that I did not hesitate to explore with fingers; of course, wearing a glove. Aseptic manipulation will not cause harm. It is only a question of technique and asepsis. Observe asepsis and manipulate kindly.

DR. BATCHELOR, in closing: I would say that with reference to the use of normal saline solution for irrigation during operation, that I quite agree with Drs. Oechsner and Walet both, that this solution would perhaps serve as well as a 1-20,000 bichloride of mercury solution. However, I have made use of the latter during the last twelve years and feel more secure when using it. Certainly my results in the eleven cases here reported would justify such confidence. This solution is not sufficient strength to cause any joint reaction, and is therefore harmless. Massage here, as in all condition of ill nutrition is, of course, beneficial. I do not attach the same importance to it as does Dr. Oechsner. I have seen these patients leave the Hospital four weeks after operation with a restricted joint motion and subsequently having no massage, return in one year with complete restoration of function. Weight bearing in the effort of walking and the involuntary contraction of the quadriceps causing greater traction on the capsule, accomplishes much in causing re-absorption of any inflammatory product that may exist in the joint and in preventing shrinkage of the capsule. I attach great importance to the influences exerted by weight bearing and do not believe that where walking is begun early that massage is strictly essential to a restoration of function.

MEETING OF AUGUST 8, 1908.

DISCUSSION OF PAPERS READ AT SYMPOSIUM ON BONES AND JOINTS.

DR. BASS: The bacteriology of acute articular rheumatism, so-called, is yet unsettled; whether the inflammation is due to the

presence of bacteria in the joint cavity and joint tissues, or whether it is due to toxins possibly from an infection very remote from the joint are questions. The fact that cultures made with almost all conceivable culture media and under the most widely varying conditions, have been generally negative, does not at all disprove the bacterial origin of the disease.

Some work recently done in England offers to throw light on the subject. In three different cases the joint fluid gave negative cultures, but the diplococcus rheumaticus of Wasserman was grown from or demonstrated in the cartilage or ligaments of the joints at autopsy illustrative of the readiness with which this organism produces arthritis in experiment animals, the injection subcutaneously or intramucously in rabbits was followed by arthritis in 65% of cases and endocarditis in 33%. From several of these the organism could not be demonstrated in the joint cavity, but could be in the immediately adjacent tissue; so-called articular rheumatism, may, therefore, yet be found to be a localized bacterial infection.

Regardless of whether bacteria or their toxins are present, recovery depends on the destruction or neutralization of such substances. So far as we now know, this is accompanied entirely by the body cells, phagocytes, etc., or by the body fluids or by both. Any treatment therefore, which would carry a large amount of blood to the part, should be beneficial. Biers hyperemic treatment has come in for considerable notice on this account. I have recently tried injecting the patients own serum—directly into the inflamed tissue in gonorrheal arthritis. The success of Flexner's antimeningococcus serum gave me the idea. I believe the success of this treatment does not depend so much on the special serum as it does on the fact that *serum*, with its many antibodies, normally present, is put directly into the infected tissue—the cerebro-spinal canal. In fact, I predict that the results might be even better if the patient's own serum was used instead of foreign serum. It would be a simple matter to aspirate a proper amount of blood from a vein, allow it to clot and remove the serum and inject into the spinal canal just as his antimeningococcus serum is given.

DR. HATCH: I was very much interested in Dr. Granger's pa-

per* and in his display radiograms, and congratulate him on his efficient work. But I must say that I do not believe that it is as easy as one might imagine, after hearing this paper, to make in all cases a positive diagnosis on the X-ray alone.

DR. HALSEY: The President this evening has given the members of this Society a beautiful demonstration of the manner in which our papers should be prepared and read. I wish to thank him for my part.

DISCUSSION OF DR. BUTTERWORTH'S paper on

"THE CLINICAL SIGNIFICANCE OF GROWING PAINS IN CHILDREN."

DR. FENNER: I have been deeply interested in the paper just read. My own experience, during the years I have been devoting myself largely to the treatment of children, has taught me the importance of the points emphasized by the essayist, and I fully concur with him in the belief that the great majority of so-called "Growing-Pains" are in reality rheumatic. The clinical picture of rheumatism in the young is but seldom one of hyperpyrexia, acutely swollen and tender joints, and acid sweating. These are rather the exception than the rule. In a far larger number the pains are slight, there is little fever, and the joints are not swollen. But the mildness of the articular symptoms does not prevent the development of cardiac complications, and it is this fact which indicates the importance of paying serious attention to even the mildest form of such a treacherous disease.

Cheadle, of London, has written extensively upon what he calls the "Rheumatic Cycle" in children. He considers rheumatism, tonsillitis, chorea, endocarditis, to be but stages in this cycle. Any child with chorea either has or may have rheumatism; and any child with endocarditis is likely to give a history of rheumatism or chorea, or may develop one or both of these later on. Much the same thing is true of tonsillitis.

Rheumatism in the young has a marked tendency to fibrosis. The sub-cutaneous fibrous nodules, which are peculiar to the rheumatism of childhood, are an example of this tendency, and while they are not so common in this country as in England, they are by no means excessively rare. I have myself reported the case of

*Dr. Granger's paper to appear in December JOURNAL.

a boy nine years with very severe rheumatism, who developed in the course of his attack chorea, endo and peri-carditis, pleurisy and pneumonia, and finally a most extensive crop of fibrous nodules, upon the scalp and along the flexor tendons of the limbs and along the ribs.

I have, however, met a few cases of "Growing Pains" which appeared to me to be in truth not rheumatism, but an expression of simple irritation in the physiological process of growth. They seemed to me to be analogous to the disturbances which sometimes attend teething, in perfectly healthy children. In spite of the earnestness with which we denounce "teething" as an explanation of disorders in the young, we all of us have seen children who, with the eruption of every tooth, suffered an attack of asthmatic bronchitis, or a mild gastro-intestinal disturbance.

DR. DABNEY: I am astonished at the novelty, or rather at the antiquity of the novelty, of a doctor speaking of "growing pains." I first heard of growing fever when I saw in consultation a case from the North, attended by a French doctor who said he had "growing pains," and that he would not grow much longer. He shortly afterwards died of tuberculosis. I am of a rheumatic ancestry, and think that the throwing of waste products in the blood induced by exercise, will precipitate these attacks. I have examined my own boy after exercising and found the pain for four or five nights afterwards. Pains in children are due to many causes, but never to growth. Some are rheumatic, some syphilitic, others myalgic, and still others due to the throwing off of waste products in the blood. Doctors laugh at growing pains; yet after listening to Dr. Butterworth's paper, we can reasonably excuse mothers when they say the child has "growing pains." I agree with Dr. Fenner that in cases of teething we often find associated diarrhea or bronchitic asthma, and if you do not recognize this association and act accordingly, then your practice among children will be lost. I have had better results from the iodides than from the salicylates in obscure pains in childhood. Syphilis plays an important part.

DR. BUTTERWORTH (in closing): The so-called growing pains, instead of being treated as trivial, should not be, since endo or peri-carditis may follow.

DISCUSSION of paper by DR. WYMER, on

“CONGENITAL ICHTHYOSIS, WITH REPORT OF A CASE.”

DR. FENNER: I have nothing to say in regard to this case except to express my thanks to the doctor for giving me the opportunity to see so rare a disease. Ballantyne, in his “Antenatal Pathology and Hygiene,” gives a description of the milder form of ichthyosis which exactly fits this case. He makes the statement that the vast majority of cases of congenital ichthyosis die, the severer forms in utero, the milder, or “Harlequin baby,” within a few weeks of birth.

DR. HACKETT: While hunting in St. Tammany Parish two winters ago, I came across a family consisting of parents and eight (8) children. They were the dirtiest bunch I ever saw. Two of the children were afflicted with the disease under discussion. The mother told me they were born so. The disease was limited to the lower extremities and hands and arms to the elbow only. One was six years and the other four years old.

Aside from foregoing they were healthy, well nourished children. These are the only cases I have seen.

Discussion of DR. FENNER'S paper on

“INDICANURIA IN CHILDHOOD.”

DR. BUTTERWORTH: Dr. Fenner has opened up a very interesting series of cases, and I am frank to confess that I never gave the subject any attention. I would like to ask Dr. Fenner: Is indicanuria of any value to concealed abscesses?

DR. JACOBY: Has Dr. Fenner used intestinal creosote pills in any of his cases?

DR. BASS: The doctor mentioned in reference to the diet of one of his patients what may prove to be an important advance in the treatment of many gastro-intestinal diseases, namely, buttermilk. If indicanuria and allied conditions are due to putrefaction of proteids in the intestinal canal, by certain bacteria, one important thing in the treatment would be to reduce to the minimum the amount of proteids taken.

Another important thing would be to feed the patient large amounts of buttermilk. The harmless lactic acid bacilli present would so far outnumber and outgrow the other harmful bacteria that the latter would be insignificant.

DR. FENNER (in closing): I am unable to answer Dr. Butterworth's question except to say that indicanuria is believed to be likely in all pyogenic conditions.

My object in reporting these cases was to call attention to the class of patients who do not present any evidence of organic disease, but who do exhibit nervous symptoms calling for relief. The detection of indicanuria will give you something definite to start treatment upon. As for the treatment, the number of intestinal antiseptics is large, but the drugs which I have employed with most satisfaction have been sodium salicylate, in small doses, combined with sodium benzoate, in fairly large ones. This combination is not only antiseptic, but it acts favorably upon the liver. If there is a tendency to constipation, I add mercury with chalk, using from 1-2 grains three times a day, according to the age of the child. Occasionally, when there is a "bad breath," I find that chlorate of potash internally will not only relieve the fetor of the breath, but will cleanse the bowel and improve the symptoms better than anything else.

Since my attention was first called to this matter by the first case I have reported, in which the nervous disturbance was so great as to almost arouse the suspicion of insanity, I have made it a practice to examine the urine of all children, whenever I could, and I have been astonished how often the detection of indican gave me the key to the successful treatment of these peculiar nervous disorders.

REPORT OF CASES.

Dr. Fenner reported two cases of "*Infantile Scurvy*" recently seen by him.

Case 1. A. F., age 9 months, was brought to me May 11, '08, referred to me by the family physician. This child was fed at the breast till 2 months old, then given Mellen's food and cow's milk till she was 6 months old, when her digestion became disordered, and Horlick's malted milk was substituted. After one month, as she did not seem to be thriving, this was changed to Eskay's food with cow's milk. After a few days they were obliged to go back to Horlick's milk. She has two teeth, the first a month and the other having appeared two or three days ago. Bowels are now in good order.

The gums are somewhat turgid and purplish, the limbs exquis-

itely sensitive, and the skin pale and muddy. The left thigh is at least $\frac{3}{4}$ inch larger than the right, which is also swollen, and in the left particularly there is evidence of sub-periosteal hemorrhage. The child has been suffering with pain and sensitiveness of her limbs for several weeks. At the slightest touch or movement she screams with pain. Recently she was submitted to an X-Ray examination, but without any conclusion being reached in regard to the nature of her trouble. I made the diagnosis of scurvy, and at once ordered that she be given 1 teaspoonful of orange juice every three hours. In order to impress the parents as completely as possible with the true character of the trouble, no change was permitted in her feeding, and no medicine was given.

May 21, '08. The baby is brought in so changed in appearance that one is surprised. The color is entirely changed. Lips and cheeks are rosy in hue. The tenderness is almost entirely gone from the limbs, and there remains only a slight swelling at the left knee. She sits up, and is bright and playful. She has cut another tooth since I saw her first. She is taking now one tablespoonful of orange juice three times a day. The bowels are healthy looking, but a little too loose, five a day and rather thin. I order peptogenic milk instead of Horlick's food, and give a tonic of syr. iodide of iron with syr. hypophosphites. The subsequent history was uneventful to complete recovery.

Case 2. L. J. G., Jr., age 12 months, was brought to me by his father, a physician, on July 1, '08. He had been brought to see me when he was four months old for moderate bow-legs, which were relieved by one month's application of plaster of Paris corrective bandages.

To-day he is brought in with the history that for the past three weeks he has refused to walk. Before that he had been very active. He is a robust looking child. He has been fed on malted and condensed milks, but has never been given any fruit juice. He cries when handled, especially when the left leg is moved, but there is no sign of swelling on the bone. Has five teeth, and around the U. C. incisors the gums are rather purple. Scurvy diagnosed, and orange juice, one tablespoonful every three hours, was ordered.

July 3, '08. The child seems to me to be decidedly less sensitive than on the first visit two days ago, handling the limbs not

producing as much pain. The gums are beyond doubt improved in appearance. It is to be noted, however, that his mother does not think the sensitiveness has been improved.

July 6, '08. The baby stood on his feet "a good while this morning." The legs do not hurt him anything like as much as they did. Nurse says, "when I am putting on his shoes and stockings, he does not cry like he used to." There is no doubt that the diagnosis was correct. The case is one of mild scurvy.

The symptoms rapidly disappeared, and in a short time longer the baby was entirely himself again.

DISCUSSION.

DR. H. P. JONES: I would like to ask Dr. Fenner if he would agree or disagree with my plan in the giving of every infant not nursing at the mother's breast one ounce of orange juice daily?

DR. JACOBY: Would like to know the action of orange juice? Would not the dilute mineral acids do as well?

DR. GRANGER: I wish to mention an instance of sub-periosteal hemorrhage in a case of scurvy. Through the courtesy of Dr. DeBuys, I skiagraphed this case and presented it with other radiograms at the Society's previous meeting.

DR. FENNER (in closing): In reply to Dr. Jones' question, scurvy is a nutritional disorder, and is rare before six months. It is certainly my practice to make orange juice a part of the diet of every bottle fed baby, after the 8th month. Up to that time it is unlikely that scorbutic symptoms will have developed. I am not able to explain the action of the orange juice, but since the famous voyage of Capt. John Smith, the specific action of fresh fruit juices upon scurvy has been an accepted fact. The report of the Committee for the Collective Investigation of Scurvy, appointed by the American Pediatric Society, concluded simply "that Scurvy is a disease due to faulty nutrition, and that it is particularly apt to attack children fed upon artificial or dried foods." Sterilized cow's milk is capable of inducing it. Any fresh food, even meat juice, will benefit it, but of all the fruits, orange juice is the most available and the most palatable.

For the etiology of scurvy, I must refer the doctor to my paper read before this Society and published in the May, 1907, issue of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The International Congress on Tuberculosis.

The International Congress on Tuberculosis is generally admitted to have been a great success. It undoubtedly was so from the number of members registered, about six thousand; from the presence of many eminent men of various nationalities; the importance of the work accomplished in the sections; the interest taken in the section work, and in the high degree of excellence of the general addresses.

Criticism can very well be made of some of the details. The general work of organization was well done; the programs were ready in time; the arrangements for caring for members seemed very well managed. Serious fault was found with the building, the same sort of fault that is found with most of all such meeting-places intended for scientific gatherings in the United States. The acoustic qualities of the rooms, and the noises just outside of them, made it very difficult to follow the speakers even in a familiar language. The unfinished condition of the building might have been overlooked, if it had not been for this serious fault. Another unfortunate circumstance was the approach to the building. Those who do not leave the beaten track in Washington, and know only the fine pavements of the main thoroughfares, received a serious shock when they encountered the dirt and smells of decaying vegetables, dead rats and other foul refuse of the market place. It would seem as if the District authorities might have taken pains to have those things improved before allowing the conditions to be seen by so many people accustomed to better order. At the same time it must be admitted that the first impression of the Congress was partly affected by the heat and rain of the first day. In the cool, clear air of the following days the sights and smells were not nearly so disagreeable as they were at first.

As for the results of the Congress, it is too early to speak in detail. Nobody expects epoch-making discoveries or announcements at such a time. For exchange of views, the meeting with old friends and the making of new ones, the opportunity for meeting and talking familiarly with discoverers of international fame, the Congress seemed eminently successful.

While all the sections were well attended, and their work closely followed, perhaps the most important feature was the large attendance of laymen. Since the advance of the struggle against tuberculosis will depend largely upon the participation of non-medical people, it was most cheering to see their active participation, especially in the Section on Hygiene.

Social functions and other diversions were not so much in evidence as they have been at the European Congresses, but there were several receptions and a great many dinners for the foreign delegates. The time left was well utilized by all the members for informal meetings in the hotel lobbies, and for visits to the public buildings, the scientific collections of the Smithsonian and the Army Medical Museum, the Corcoran Gallery and the parks and cemeteries, with their recent acquisitions from the chisel of St. Gaudens. Many visitors seized the opportunity of inspecting the great work on Mosquitoes, by Messrs. Dyar and Knab, preparing under the auspices of the Carnegie Institute, the collection of Blistering Beetles of Dr. Wellman, both in the National Museum, and the various departments of the Hygienic Laboratory of the Marine Hospital and Public Health Service, where Reid Hunt, Stiles, Rosenau and Anderson and their brilliant corps of assistants, produce so much good work of the greatest value to the public as well as to science in general.

The yellow press could hardly be expected to neglect its opportunity, and it is to be regretted that the work of Detre in the cutaneous reaction should have been seriously misrepresented. Undue prominence was also given to the difference of opinion of Koch on the one hand, and a number of French, English and American investigators on the other. As the difference was wholly scientific, it seemed unfortunate that both sides adhered so tenaciously to their own views without making it clear that there were definite hygienic problems to solve and to care for, no matter how Koch's requirements were answered. It also seems

unfortunate the idea was allowed to be published that scientific questions could be decided by votes or resolutions.

Too much praise cannot be given to the exhibit. It was well arranged and easy to examine. One missed the remarkably complete and instructive exhibit of pathologic anatomy at the London Congress in 1901. The anatomic preparations at the recent Congress were not so complete, but nevertheless of decided merit. The exhibit of models of sanatoria, houses and all other arrangements for caring for sick people, as well as of actual disease-breeding houses, was most interesting and instructive. Such an exhibit as that of New York alone was well worth a trip across the continent to see, while the exhibits of Massachusetts, Pennsylvania, Colorado and some other States was as good, though not so large, and the models of English and German sanatoria were most interesting. It can hardly be doubted that the effect of such an exhibit will be of great and far-reaching influence, and that the next Congress will find great difficulty to devise a program superior to that which has just been finished.

International Medical Congress.

Unusual interest has been elicited in the forthcoming Congress to be held in Budapest in August, 1909. Heretofore the International medical gatherings have met in cities along the beaten track and some large metropolitan capital has been selected. Next year this event is to take place in Hungary, among a people provincial in type and offering the most varied opportunities for the traveler and student of human nature as well as of sights. Extraordinary preparations are being made and the organization of the Congress is already well advanced. Elsewhere in this number we publish an important notice regarding contributions from the medical profession intended for this Congress.

Not only is the section work to be remarkable in its scope, but a great deal of enthusiasm has been elicited in the general plan for excursions incident to the Congress.

The American contingent is especially fortunate in the selection of the American Secretary and all who are interested should write Dr. J. H. Musser at No. 1927 Chestnut street, Philadelphia, Pa.

Flexner's Antimeningococcus Serum.

The Laboratory of Internal Medicine, Tulane Medical Department, located at the Hutchinson Memorial, Canal street, announces an arrangement made with Professor Samuel Flexner, of the Rockefeller Institute for Medical Research, by which this Laboratory will have the privilege of supplying Flexner's Antimeningitis Serum.

The anti-serum is specific and has no effect in other than meningococcus meningitis. Cases so far reported indicate that when used early the results compare well with the effect of diphtheria antitoxin in diphtheria.

This announcement is made with the idea that the profession may be advised of a source of supply of the serum and in order that the laboratory may co-operate with those having occasion to use the serum. Professor George Dock and his assistants, Dr. C. C. Bass and Dr. Randolph Lyons, are in charge of the laboratory. General instructions have been issued for the employment of the serum, an abstract of which may interest our readers.

The anti-serum should be kept in a refrigerator until it is to be used, when it should be warmed to the body temperature before it is injected; the anti-serum is to be introduced directly into the spinal canal after the withdrawal of cerebro-spinal fluid by lumbar puncture; the maximum amount should not exceed 30 to 45 c. c. for each injection; injections should be repeated every twenty-four to forty-eight hours, or at longer intervals depending on the case, until three or four injections have been given; the earlier the injections are made, the better the results; relapses should be treated with renewed injections as in a fresh case.

The treatment should be governed at all times by the microscopic appearance of the exudate; the anti-serum in very late stages of the disease and where the diplococcus can not be demonstrated is considered useless.

Exact records of all cases should be kept and this should include microscopic examinations in order that the experience may be added for purposes of final definition of the usefulness of the anti-serum.

Abstracts, Extracts and Miscellany.

Miscellany.

Parisian Medical Gossip.

MARAT, THE PHYSICIAN, A HERETOFORE UNEDITED CONSULTATION OF MARAT'S. AN ENVIOUS LETTER OF MARAT'S.

Translated by DR. THOMAS C. MINOR, Cincinnati, Ohio.

The name of Marat naturally awakens reminiscence of the bloody days of the French Revolution; the massacre of subjects, violent struggles and ferocious hatred. Yet, there is another Marat, one we should view prior to him who was called "*The Friend of the People*," the Doctor Marat of 1789.

This was the Doctor Marat, the medical novelist who wrote the romance, "*The Adventures of Count Potowski*," the manuscript of which was exhibited at the Exposition of 1889. The philosopher, the pupil and admirer of Jean Jacque Rousseau, the friend of nature and of colors who wrote in 1783 to a friend upon the point of obtaining a concession to the Trinity, and expressed himself thus: "In the concession I wish to make do not fail to inscribe in a small corner, I am one who loves the country."

Marat gave his name to a flower, "*Romulea Maratti*," one of the family of Sillaceæ. The sensible and impressionable man, who could make a skillful autopsy on a cadaver, wrote in 1781: "My sensitiveness scarce permits me to assist at the opening of my friend's body—so tomorrow I must be represented at the post-mortem by Doctors Boyer and Maitre."

This feminist and partisan of free love who proclaimed identity in both sexes in the culpability of adulteries and demanded paternity with forced marriage among the guilty! But Marat deserves more merit as a man of mind and learning above all. Before practising medicine and laboratory research Marat had been a professor at Bordeaux, among the Girondins. He had likewise gone to Edinburgh, to Saint Andrew's University, Scotland, in June, 1785, and was just aged 31 years. In 1776 he published an opuscle before settling down in Paris.

We find Marat mentioned from 1786 to 1779 in the "*Royal Almanach*." He was mentioned then as "M. Marat, Doctor of medicine, physician to the Guards, Rue Bourgoyne, Faubourg St. Germain, Paris, France."

While practising medicine, Marat studied the physical sciences, inventing experiments that soon made him known. He also published a little later on, certain works of merit. These opuscles were "Discoveries in light (1780); Physical researches on Fire (1780); Investigations in Electricity (1782); Memoir on Medical Electricity (1783); Facts in Optics (1784); Translation of Newton's Optics" (1787). Doctor Diderot, of Lyons, analyzed Marat's work and has expressed himself as follows: "He made well conducted experiments based on truly scientific methods; these were especially fine in the field of medical electricity, and many of his conclusions have proved to be truthful, although the problems at that time were difficult to solve. We find too, in these works, the combative temperament of the future revolutionist. He did not fail to attack Benjamin Franklin and Newton and literally attacked their theories and discoveries, thus he affirmed by his experiments that the spectrum had only three, and not seven simple colors, and that these three were yellow, blue and red.

He exhibited marked variety in these essays, and what is vulgarly termed in modern days as arrogant bluff, yet, withal, he showed fine intelligence, and foresaw future results. He was one of the very first to note the value of electricity in medicine. Static electricity was then in its infancy. He soon achieved a reputation as an electric expert in medicine.

Marat was the physician of the wife of Mesnier, who was Mayor of Paris. It was claimed he cured this lady of phthisis. Owing to the influence of this woman, Marat was made surgeon of the National Guard, under Charles X. This free lover, Marat, had been so intimate with the lady, that she recommended the fashionable world to employ his medical services. Then, as now, it was "the woman in the case."

Once named physician, in close political connection with the King, naturally an ingrate, with his egotism willing to shine in the French Revolution, he met the fate he deserved. An enemy of the aristocracy, which means an enemy of the gently raised and well bred, he did all the best his cruel and miserable nature inspired.

He did more harm to France than ever the Germans did; a natural born snob, like most of his ilk, of this kind of cattle, he once wrote to a friend: "I hope you will refuse my gift, seeing it comes through the nobility of my family, that comes from Spain as well as from France." Signed J. P. Mara (his proper name).

This was the Cruel Marat, a man who combatted the views of Benjamin Franklin, and Newton, a brilliant genius, notwithstanding his faults. There is a letter extant from one Monsieur Roubaud, written in 1779. This Roubaud was a young doctor, and had a charming wife, who had tuberculosis. Marat cured the lady. He cured a good many women in his day and generation. He said, "She had a bad pain in her chest." "*Eh bien!*" *Peut-être, mais cela ne fais rien du tout.*" In *Nouveau Orleans*, *eh bien!* you will understand this. She had a slow fever. Once on a time in the golden past, an English King once sent for a doctor. The physician went to the King's room, up the back stairs. He met a charming woman coming down these stairs. On entering the King's room (it was Edward VIII) the physician said: "Your Highness, what ails you this morning?" "I have a fever," answered the King. "Yes," said the doctor, "I met the fever coming down stairs."

We now come to a heretofore unedited letter of Marat's that is a curiosity. A certain Mr. Roubaud sent a prescription of Marat's to a brother.

"To Monsieur Roubaud, Lawyer, care Café Villeroy, Lyons, France.

PARIS, MARCH 3, 1779.

I have come, in the end, to use your doctor's medicine, and wish to mention a small consultation had with him. You advised me to have a concise and proper opinion traced for me. Now, if you have any regard for your wife, it would be better to secure your medicine in from Lyons rather than have him support your judgment on the opinions of a physician a hundred leagues away, who only considers your lady's case on the information furnished, symptoms that change so often at the patient's bedside. Then, too, remember doctors have systems that extend to mathematics in medicine, and that medicine not upon principles, but on mere ideas,—ideas that often kill as well as cure. So my friendship for you induces me to remark: I should advise with my father, yet,

decide as you think best, and you will ever find me ready to give even the very best advice from my heart. J. ROUBAUD.

P. S.—Your doctor Marat seems rather expensive. His consultations are \$5.00, and his ordinary prescription costs \$2.50.”

Certain it is, however, Marat was an excellent physician.

Department of Nervous and Mental Diseases.

In Charge of DRs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

CONTRIBUTION TO THE CYTOLOGICAL STUDY OF THE CEREBRO-SPINAL FLUID. (*Beitrag zum Zellstudium der Cerebrospinalflüssigkeit*.—M. Pappenheim, *Zeitschr. f. Heilk.*, H. 10, 1907).

The author has made the interesting discovery that every cerebro-spinal fluid exercises a deleterious influence on white blood corpuscles; this quality is especially well marked in the fluid of general paralytics, and heating the fluid to 56 destroys this action. It is, therefore, advisable to add formalin to the cerebro-spinal fluid soon after its withdrawal. Many peculiar elements described in the cerebro-spinal fluid are merely degenerated leucocytes, which have been acted on by the leucotoxin. The author has especially studied the elements described by Sabrazés and Muratet, under the name of “Hematomacrophage” elements. Their presence may be due to cerebral haemorrhage dating back about a week; yellow colouration points to an older haemorrhage, perhaps due to a previous puncture. The author shows that the “hematomacrophage” elements may have a similar cause, for in one of his cases he found these cells in the dura mater at the site of a previous puncture. VAN W.

THE SYMPTOMS DUE TO CERVICAL RIBS (Wm. Thorburn, *Med. Chron.*, Dec., 1907, p. 165.)

Notes of a number of cases are given in this article, the nervous symptoms being considered in greatest detail. It would appear that symptoms are much more common in the female than in the male, that they generally involve the right upper limb, and that they tend to appear in early middle life. The cases in which nervous symptoms are present fall into two groups—the neuralgic, in which pain and subjective weakness are alone complained of,

and the paralytic, in which there is definite loss of power or sensation. In the neuralgic cases the pain may be felt in the neck or in the upper limb, but is much more characteristic in the latter. It follows the distribution of the first dorsal, or first dorsal and eighth cervical roots; it is usually described as tingling, or as a numb pain, and is often associated with a marked feeling of coldness and is apt to be aggravated by cold.

The more serious paralytic cases commence with purely subjective symptoms; when objective symptoms are found, they also are usually limited to the regions supplied by the first dorsal and eighth cervical roots, e. g., paralysis and wasting of the hand muscles and sensory defects, frequently with dissociation of the various forms of sensation. Early removal of the offending rib is recommended in all cases of reasonable severity. Details of the operation are given, the author giving preference to a straight, more or less vertical incision in the posterior triangle, reaching well up above the clavicle and lying well back, so that in the necessary dissection the nerves and subclavian artery are turned forward—the operation being from the side rather than from the front of the neck.

VAN. W.

TUMOR OF THE CAUDA EQUINA AND LOWER VERTEBRAE. William G. Spiller, *Amer. Journ. Med. Sc.*, March, 1908.)

The author discusses the differential diagnosis between hysteria, multiple neuritis confined to the lower limbs, intra-pelvic tumour, tumor or caries of the lumbar vertebrae or sacrum, lesions within the vertebral canal, but external to the dura, tumor or other lesion (hemorrhage) of the conus, and tumour of the cauda equina. The paper contains the report of nine cases; seven with necropsy, three with operation.

In case 1 a round-cell sarcoma was found within the roots of the cauda equina. Case 2 was especially interesting, as the tumor (fibro-sarcoma) was at the centre of the cauda equina, and yet the nerves for the bladder and rectum escaped, and the pain at first was unilateral. The symptoms made the clinical diagnosis between tumor of the cauda equina and tumor of the vertebrae difficult. In case 3 numerous hard masses (osteo-sarcoma) were found in the roots of the cauda equina, and most of these were in the roots where they penetrated the dura, although some were within the roots in the dural cavity. A fibro-sarcoma was found

in case 4 outside the dura, and an endothelioma in case 5, also external to the dura. Cases 6 and 7 were clinical and without confirmation by operation or necropsy. In addition to these seven cases, brief reference is made to a lipoma of the film terminale and to a small osteoma of one of the roots of the cauda equina.

Statistics as yet do not justify the statement that the prognosis from surgical intervention on the sacrum and lumbar vertebræ is decidedly better than on the other vertebræ and the cranium. In the author's cases, when the tumors could be examined they were all of such a character that complete removal would have been impossible, and this seems to have been true of most, if not of all, recorded cases. The well-defined almond-shaped fibromas or fibro-sarcomas occurring frequently at higher levels of the cord are much less likely to develop in the region of the cauda equina. If the prognosis for surgical treatment at present is somewhat gloomy, a larger experience may give reason for hope. It is possible at least to cut posterior roots in order to relieve pain. A large amount of cerebro-spinal fluid escapes when the lower part of the spinal column is opened, and urine and faeces are likely to soil the bandages in those cases where the bladder and rectum are paralyzed, although it should be possible to prevent this. The paper is a long one, and does not lend itself readily to abstracting.

VAN W.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

MINUTES OF 1908 MEETING.

(Concluded.)

THURSDAY, MAY 14, 1908.

MORNING SESSION.

Meeting called to order at 9:30.

Vice-President LAZARO in the chair.

Minutes of previous day's meeting read and approved.

The report of the Nominating Committee was then read by Dr. GESSNER.

Upon motion of Dr. LITELL it was ordered that the nominations and recommendations of the Committee be voted on serially.

The election was then taken up and resulted as follows:

Dr. E. Denegre Martin, President.

Dr. J. B. Hargrove, First Vice-President.

Dr. C. J. Gremillion, Second Vice-President.

Dr. John Callan, Third Vice-President.

Dr. E. M. Hummel, Secretary.

Dr. C. C. Bass, Treasurer.

Dr. P. E. Archinard, Councillor, First District.

Dr. E. J. Graner, Councillor, Second District.

Dr. Allen Eustis, Councillor, Third District.

Dr. Oscar Dowling, Delegate to American Medical Association.

Dr. H. L. Ballowe, Alternate Delegate to American Medical Association.

An honorarium of \$500 was voted the Secretary. An honorarium of \$50 and \$25 additional for traveling expenses was voted the Assistant Secretary.

New Orleans was selected as the place of next meeting.

Date of next meeting was fixed for first Tuesday, Wednesday and Thursday of May, 1909.

DRS. C. D. SIMMONS and STERLING J. GATES were nominated for vacancy on State Board of Medical Examiners.

DR. FRANK A. CHALARON read a paper entitled "Gleet, Its Causes." Discussed by DRs. CHASSAIGNAC and LAZARD.

The paper by DRs. CARROLL W. ALLEN and C. C. BASS entitled "An Unusual Case of Infection of the Genito-Urinary Tract, Apparently Not Amenable to Vaccine Treatment," was read by title and referred to the Committee on Publication.

DR. CHARLES CHASSAIGNAC read a paper entitled "Antigonococcic Serum." Discussed by DRs. BLACKMAN, EUSTIS, LAZARD, CHALARON, VIALET, GESSNER and BASS.

DR. J. B. GUTHRIE read a paper entitled "A Discussion of the Action of Certain Drugs on the Blood Vessels." Discussed by DRs. GESSNER, EUSTIS and McSHANE.

DR. ALLEN EUSTIS read a paper entitled "Intestinal Parasites; with Special Reference to *Strangyloides Intestinalis*; Report of Cases." Discussed by DRs. LEMANN, GUTHRIE, DUREL, E. D. MARTIN and BASS.

DR. WALLACE J. DUREL read a paper entitled "The Relative Value of the Polynuclear Neutrophiles (Leucocytes) in the Diagnosis, Prognosis and Treatment of Tuberculosis."

DR. ISAAC IVAN LEMANN read a paper entitled "The Management of Diabetes Mellitus." Discussed by DRs. EUSTIS, and CHASSAIGNAC.

DR. W. M. PERKINS read a paper entitled "Traumatic Aneurysm and Arterial Varix." Discussed by DRs. PARHAM and GESSNER.

On motion of DR. BASS, it was ordered that those members who had come in since their papers were called be requested to give same to the Secretary, and that the papers be referred to the Committee on Publication.

The Secretary announced that the Council had organized by electing DR. GRANER, President, and DR. SCALES, Secretary.

DR. GRANER then read the report of the Committee on Conference with Bar Association Relative to Expert Testimony, which report was referred to the Legislative Committee on motion of DR. PERKINS.

The report of the Committee on Cancer of the Uterus was referred to the Committee on Publication.

The Morning Session then adjourned.

AFTERNOON SESSION

Meeting called to order at 2:30, by PRESIDENT DOWLING.

On motion of DR. LEMANN the report of the Council was taken up for consideration.

On motion of DR. CHASSAIGNAC the paper by DR. LAZARO was adopted as a memorial to the Legislature in regard to a home for consumptives.

On motion of DR. PIERSON it was ordered that the incoming President appoint a committee of five to gather data as to the advisability of establishing an official journal, to report at the next meeting.

On motion of DR. EUSTIS it was declared to be the sense of the Louisiana State Medical Society that its members be requested to comply with the laws regarding vital statistics.

On motion of DR. J. F. OECHSNER the recommendation of the President that Secretaries of Parish Medical Societies be required to report, was adopted.

The third and fourth recommendations of the President were laid over to be taken up in connection with the report of the Legislative Committee.

The recommendation of the President that the State be divided into districts under the supervision of the Vice-Presidents was referred to the Council with power to act, on motion of DR. OECHSNER.

The recommendation of the President with relation to reciprocity was read and action deferred.

The President's recommendation concerning tuberculosis was read, but the action on DR. LAZARO's paper in effect adopted this recommendation.

The recommendation that a Press Committee be appointed was next read, and on motion of DR. CHASSAIGNAC, it was ordered that the incoming President appoint a committee of three.

The President's recommendation that Fraternal Delegates be sent to Arkansas, Mississippi and Texas, was adopted, on motion of DR. MCSHANE.

The motion of DR. LAZARO was then taken up. DR. GUTHRIE moved as an amendment that the plan presented by the American Medical Association for the organization of a House of Delegates

be adopted. DR. LAZARO accepted the amendment and the motion carried, and the incoming President was directed to appoint a committee of three to draw an amendment in accordance with said plan.

DR. GRANGER offered a resolution indorsing the stand of the *Morning World* on the patent medicine and quack business. Adopted.

DR. CARUTHERS offered a resolution recommending that measures be taken by the State Board of Health, the Board of Public Education and school authorities, to secure legislation looking to the examination of the eyes and ears of school children. Adopted.

PRESIDENT DOWLING read a telegram from DR. McVEA expressing his regret at being unable to be present.

Upon motion of DR. IRION the incoming President was directed to appoint a committee to co-operate with the State Board of Health.

On motion of DR. LEMANN it was directed that said committee have power to represent the Society.

On motion of DR. ARCHINARD the report of the Committee on Expert Testimony was referred to the Committee on Legislation.

The Secretary read a communication from Miss Barton, Secretary of the Anti-Tuberculosis League of Louisiana. On motion of DR. ARCHINARD it was ordered that the communication be received and that the Secretary address a communication to each member of the Society in regard thereto.

The Secretary read a communication from DR. KOHNKE embodying a resolution on the death of DR. CARROLL. The resolution was adopted on motion of DR. GRANER.

On motion of DR. GUTHRIE Senate Bill No. 5117, relating to tuberculosis, was endorsed.

On motion of DR. OECHSNER a vote of thanks was extended the citizens of Alexandria, particularly the ladies, the Elks, the Rapides Club, and DR. HAYS, as well as the press.

On motion of DR. LEMANN the report of the Legislative Committee was read.

On motion of DR. GUTHRIE the proposed bill dealing with the practice of medicine in the State was adopted as read.

The Secretary read a memorial advocating the passage of a

certain Senate Bill. On motion of DR. CHASSAIGNAC, it was ordered that the memorial be signed by the Secretary.

DR. PERKINS offered a resolution asking the Legislature to make more ample appropriation for the asylum at Pineville. Adopted.

DRS. NEWTON and WILSON were appointed a committee to escort the President-elect to the chair.

PRESIDENT DOWLING announced that after the installation of the President, the names of all other officers-elect would be read, and they would be regarded as installed.

PRESIDENT-ELECT MARTIN was then presented by the retiring President, who presented a gavel to the Society, through the President-elect.

PRESIDENT MARTIN in the Chair.

The names of the other officers-elect were then read by the Secretary, and they were declared duly installed.

Upon motion of DR. GUTHRIE the Secretary was instructed to send a telegram to DR. McCORMACK, advising him of the adoption of the American Medical Association plan of a House of Delegates.

The President then declared the meeting adjourned, to meet in New Orleans the first Tuesday in May, 1909.

Medical News Items.

LOUISIANA STATE BOARD OF MEDICAL EXAMINERS.—The following resolution was passed by the State Board of Medical Examiners, at a special meeting, held in New Orleans, September 29, 1908:—

“Whereas, the law passed at the last session of the Legislature, relative to the practice of medicine and midwifery in this State, makes the practice of medicine and midwifery, without the necessary qualifications a misdemeanor, and it is made the duties of the District Attorneys to prosecute all violators of the law.

Be it resolved that individual members of the profession and the Parish and local Societies be earnestly requested to aid and coöperate with the State Board of Health and the Board of Medical Examiners in enforcing the medical law.”

We now have a good medical law, which should be enforced by a concerted action on the part of the medical profession, which should hereafter insist on the District Attorney prosecuting all violators of the law.

The State Board of Medical Examiners suggests that uniformity of action may be better attained if infractions of the law are reported in detail to the Board so that the Board may coöperate in the effort to have the violators punished.

RECIPROCITY REGULATIONS IN LOUISIANA.—In accordance with the recent amendment to the medical practice act providing for reciprocity, the Louisiana State Board of Medical Examiners, at a meeting September 29, adopted the following resolutions:

"On and after October 1, 1908, the Louisiana State Board of Medical Examiners will grant a license, without examination, to applicants who will comply with the following conditions:

"1. They must appear in person before the board.

"2. They must present a diploma from a college rated as Class A by this board (i. e., medical colleges rated between 70 and 100 per cent. by the Council on Medical Education of the American Medical Association).

"3. They must present a certificate of examination by and from a State Board of medical examiners recognized by the Louisiana State Board of Medical Examiners.

"4. They must furnish satisfactory proof of their identity.

"5. They must give satisfactory evidence of good moral character.

"6. They must pay a fee of \$25.

"Applicants possessing a diploma from a medical college rated Class B by this board (i. e., medical colleges rated between 50 and 70 per cent. by the Council on Medical Education of the American Medical Association), in order to obtain a license to practice medicine in this State, must comply with the following conditions:

"1. They must furnish satisfactory proof of their identity.

"2. They must give satisfactory evidence of good moral character.

"3. They must present in person their diploma.

"4. They pay the examination fee (\$11.)

"5. They must pass a satisfactory examination."

The Louisiana State Board of Medical Examiners recognizes at

present certificates issued by the following state boards: Colorado, Connecticut, Delaware, District of Columbia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, South Carolina, Texas, Utah, Vermont, Virginia, Wisconsin.

INTERNATIONAL MEDICAL CONGRESS—NOTICE TO CONTRIBUTORS.

PHILADELPHIA, PA., AUGUST 21, 1908.

TO THE EDITORS OF THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL: I want to remind the members of the Medical Profession through your journal that contributions to the Congress must be announced to the Secretary before January, 1909. It is desired by the committee that the manuscripts should be in their possession by the 21st of January, 1909. It should be known that the time for the reading of a paper does not exceed twenty minutes, and that manuscripts should be clearly written, as the correction of the proofs is attended to at the office of the General Secretary. Copies of the manuscripts will be returned by July 31, 1909. The General Secretary is Professor Emil Grosz, M. D., the address, Budapest, VIII., Esterhazy-utca 7. Arrangements are in good progress and the preliminary programme contains the names of distinguished men throughout Europe and this country. Professor Osler writes that there is much enthusiasm. Arrangements are under way for an excursion to Constantinople returning by the way of Greece.

There will be no difficulty about physical accommodations for the members.

Blank forms of application for membership to the Congress and for the presentation of papers can be had of the Chairman of the Committee.

Very truly yours,

1927 Chestnut St., Philadelphia, Pa.

J. H. MUSSER, M. D.

TRI-STATE MEETING.—The Tri-State Medical Association of Mississippi, Arkansas and Tennessee will meet in Memphis, November 24, 25 and 26, at Hotel Gayoso. This is the twenty-fifth anniversary of the Tri-State, and an effort will be made to obtain from its membership of over 700 a record-breaking attendance. Arkansas elects the President this year.

THE SOUTHERN MEDICAL ASSOCIATION will hold its next annual meeting in Atlanta, Ga., November 10, 11 and 12, 1908. This Association, which is the Gulf branch of the American Medical Association, numbers 6,027 members.

THE OKLAHOMA STATE BOARD OF MEDICAL EXAMINERS.—The new Board of Medical Examiners of Oklahoma met at Shawnee on October 6, and organized with the following officers: Dr. W. T. Tilly, Muskogee, President; Dr. H. C. Montague, Muskogee,

Vice-President; Dr. F. P. Davis, Enid, Secretary; Dr. D. W. Miller, Blackwell, Treasurer. The members are: Allopathic, Dr. W. T. Tilly, Muskogee; Dr. A. M. Chambers, Peteau; Dr. A. M. Butts, Holdenville; Dr. A. E. Davenport, Oklahoma City, Oklahoma; Dr. D. W. Miller Blackwell, Eclectic; Dr. E. P. Davis, Enid. Osteopaths, Dr. N. C. Montegue, Muskogee; Dr. J. A. Price, Guthrie, (alternate). Physic Medical not filled.

The next meeting of the Board will be held at Muskogee on November 10, 1908. This Board requires a diploma from recognized medical college and a written examination.

THE SOUTHERN MEDICAL ASSOCIATION has issued a supplemental bulletin containing important information regarding the coming meeting in Atlanta November 10 to 12.

Important items contained are hotel rates, railroad fares and section announcements. A complete list of principal cities in the South with returning fares is published, which makes the announcement unusually convenient. The New Orleans rate to Atlanta will be \$20.05. Tickets will be sold November 7, 8 and 9 only.

Among papers listed we note contributions from Drs. F. H. Watson, E. M. Hummel, Fred J. Mayer, D. Harvey Dillon, J. H. White, I. I. Lemann, R. M. Van Wart and George Dock, of New Orleans.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION elected the following officers at their recent meeting in Louisville: Drs. J. A. Witherspoon, Nashville, Tenn., President; Louis Frank, Louisville, Ky., First Vice-President; Albert E. Sterne, Indianapolis, Ind., Second Vice-President; S. C. Stanton, Chicago, Ill., Treasurer, and Henry Enos Tuley, Louisville, Ky., Secretary. The next annual meeting will be held in St. Louis, Mo., October, 1909.

THE TRI-STATE MEDICAL SOCIETY (Louisiana, Arkansas and Texas) will meet in Texarkana on November 10-11, 1908.

MEETING OF THE ATTAKAPAS CLINICAL SOCIETY.—The Attakapas Clinical Society met in Lafayette on Sept. 24th, and held a pleasant meeting replete with business. The next session will be held at Crowley.

THE AVOYELLES PARISH MEDICAL SOCIETY met in Marksville, October 1, with the following members present: Drs. E. S.

Mathews, E. De Nux, and D. B. Davis, of Bunkie; Dr. C. J. Ducote, Cottonport; Dr. Brahaeir, Plaucheville; Dr. E. Kiblinger, Alexandria; Dr. G. R. Fox, Moreauville; Dr. R. G. Ducote, Bordelonville; Drs. G. A. Roy, E. Regard and G. R. Drouin, of Mansura; Drs. T. C. Garleton, Merrick, Saucier and W. F. Couvillion, of Marks ville. Subject for discussion was "Nephritis," which was discussed by nearly all the physicians present.

The next meeting will take place in Bunkie, Jan. 1, 1909.—(R. G. Ducote, Sec.)

LICENSED TO PRACTICE BY STATE BOARD.—The following doctors passed the examination before the State Board of Medical Examiners in October: T. J. Smith, Frogmore, La.; C. H. Par due, Downsville; G. B. Broadway, Holum; A. R. Sweeney, Lake Arthur; Karl W. Ney, New Orleans; A. C. Hester, Junction, Ark.; J. W. Lamon, Baton Rouge; Elliott Smith, Fort Jessup; W. C. Gibson, Highlands; J. C. Wallace, Osyka, Miss.; Miles Medlin, Menville. All the above are whites. The negro doctors were: E. E. Peyton and L. A. Butler, both from Flint College.

ANNOUNCEMENT BY STATE BOARD OF HEALTH.—The State Board of Health has announced that in future the laws requiring all physicians practising in the State to register will be rigidly enforced.

MISSISSIPPI STATE BOARD OF MEDICAL EXAMINERS.—There were 103 applicants before the Mississippi State Board of Medical Examiners for license to practice medicine, and only 33 passed.

NOTICE TO VETERINARY PHYSICIANS.—The Louisiana State Board of Veterinary Medical Examiners issued a notice to the veterinary physicians of the State that they must secure their licenses to practice veterinary medicine in Louisiana, under the terms of the present law.

MEMBERS OF THE OSTEOPATH BOARD OF MEDICAL EXAMINERS.—The Osteopath State Board of Medical Examiners is composed of the following: C. S. Hewes, President; W. A. McKeehan, E. Gaupp, all of New Orleans; C. W. Hamilton, Lake Charles; P. W. Geddes, Shreveport.

GRADUATING EXERCISES OF TOURS INFIRMARY TRAINING SCHOOL FOR NURSES.—Eighteen young ladies received diplomas

and gold medals at the graduating exercises of the Touro Infirmary Training School for Nurses, on September 30. Rabbi I. L. Leucht delivered the address. One of the number, Miss Florence Ethel Jarvis, was awarded a prize of \$100 by the Board of Directors for having had the best average as a trained nurse.

COLLEGE OPENINGS.—The New Orleans College of Dentistry opened with the largest attendance in its history; eighty-five students being enrolled, this being the largest number on record. Before the opening of the college, Dr. Friedrichs made a short address to the students. He called attention to the increased corps of instructors and stated that two chairs had been added to the faculty, those of materia medica, with Dr. John C. Crimmens in charge, and the X-Ray, under Dr. Amédée Granger. The college had been thoroughly equipped with laboratories for X-Ray work, which would greatly facilitate the work of the students.

The Mississippi Medical College, of Meridian, formally opened on October 1, with sixty-four matriculates. The total number of students, it is expected, will be about one hundred and fifty.

PERSONALS: Dr. John F. Erdmann was recently appointed Professor of Surgery in the New York Post-Graduate Medical School and Hospital.

Dr. Hermann von Schrotter, of Austria-Hungary, was in New Orleans during the past month.

Dr. S. Weir Mitchell, of Philadelphia, adding to the many honors already accorded him, has received a foreign fellowship in the Royal Society of England.

Dr. E. Denegre Martin has returned after a delightful six weeks' vacation in the mountains of Virginia.

Drs. Paul Reiss, C. J. Miller, J. B. Elliott, Jr., and S. M. D. Clark have returned from European vacations.

Dr. H. M. Folkes, of Biloxi, has made extensive additions to his sanitarium on the coast.

Dr. Eugene Rosamond is the new editor of the *Memphis Medical Monthly*. He succeeds Dr. Richmond McKinney, who retired last month.

Dr. W. J. Durel, who attended the International Tuberculosis Congress, said that the results obtained in Louisiana, at the two sanitariums in St. Tammany, were as good as any other results re-

ported elsewhere. The International Tuberculosis Congress will meet in 1911, in Rome, Italy.

Dr. C. Milo Brady, of Jefferson, is appointed Medical Inspector of State Board of Health.

Dr. A. C. King, Algiers, spent his vacation in the Northwest.

Dr. K. W. Ney, great-grandson of Marshall Ney, formally of Louisville, Ky., has located in this city.

Dr. Harriet Hartley, of Philadelphia, has been appointed clinical professor of surgery at the Woman's Medical College of Pennsylvania.

Dr. A. B. Gaudet spent his vacation in the mountains of North Carolina.

Dr. L. R. DeBuys has returned from a six weeks' trip to Boston and New York.

Dr. Joseph Hume spent his vacation in North Carolina.

Mr. A. P. Schroeder has opened an office for doctors' supplies at 223 Bourbon street. Mr. Schroeder has been with local houses for the past twenty years, and is well known among the profession.

Dr. F. M. Thornhill of Arcadia, Dr. F. J. Kearney of Plaquemine, Dr. F. R. Tolson of Lafayette, Dr. F. W. Hagaman of Norwood, Dr. C. D. Simmons of Baton Rouge, La., were among recent visitors to New Orleans.

REMOVALS: Dr. M. R. McAlpin has moved from Hinston to Pitkin, La.

Dr. J. G. Gulledge from Winsboro to Crowville, La.

Dr. H. B. Seebold from Burrwood, La., to New Orleans.

Dr. Jas. Kilborn from St. Francisville to Ethel, La.

Dr. Roy C. Black from Commerce, Texas, to Itasca, Texas. Dr. Black attended the New Orleans Polyclinic last year.

MARRIED.—Dr. Michel Thomas Lanaux, of New Orleans, and Miss Mary Elizabeth Rich, were married Oct. 20, 1908, at the residence of the bride in Mobile, Ala.

Dr. Hector Emile Bernadas and Miss Hester Lily Kinberger, both of this city, were married Oct. 20, 1908.

Dr. R. C. Claiborne, New Roads, La., and Miss Eloise Mumford, of New Harmony, Ind., were married September 22.

Dr. John Overton Pratt, of New Orleans, and Miss Carrie Kyle, of Mobile, were married at the residence of the bride on October 8.

TULANE NOTES.

THE UNDERGRADUATE MEDICAL DEPARTMENT of the University opened on October 1; the common exercises for all the colleges were held in Gibson Hall, following which the opening lecture of the Medical Department was delivered by Dr. Gustav Mann, Professor of Physiology, and head of this department in the University. A large and representative audience, consisting of the students, members of the faculties and of the medical profession, followed an interesting discourse on the subject of "Our Limits." The essayist dealt with the gradual evolution of the human brain and its attributes. On October 5th all courses were in active progress, and hereafter it is believed that no delay will be necessary, as students are learning to matriculate early.

THE PHARMACY DEPARTMENT has been successfully organized and rehabilitated out of the old course in pharmacy in the Medical Department. Hereafter the degree of Pharmaceutical Chemist will be given to graduates of the Department and with the new laboratory in the Richardson Chemistry Building all sorts of facilities will be afforded for the best of instruction in pharmacy. The Faculty for the session of 1908-'09 will be as follows: Edwin B. Craighead, president of the university; Isadore Dyer, dean of the pharmacy department for the session of 1908-'09; Prof. A. L. Metz, professor of chemistry and medical jurisprudence; Prof. L. W. Wilkinson, professor of industrial chemistry; Prof. B. P. Caldwell, associate professor of chemistry; Prof. J. T. Halsey, professor of materia medica and pharmacology; Prof. R. S. Cocks, professor of botany and pharmacognosy; Prof. Gustav Mann, professor of physiology; Prof. G. S. Brown, associate professor of pharmacy. Prof. Barnett will teach physics this year.

THE NEW ORLEANS POLYCLINIC, the Post-Graduate Medical Department of the University, will open on November 2.

THE OPENING LECTURES OF PROFESSOR MANN AND PROFESSOR DOCK were largely attended by members of the several Faculties and the medical profession of New Orleans, who had been invited.

THE COURSE ON HYGIENE for the session of 1908-'09 will be conducted by the various members of the Medical Faculties and

will take place on Mondays and Tuesdays of each week in the Richardson Memorial on the Tulane Campus. These lectures are always open to the members of the several Faculties in Tulane and to any member of the medical profession who may obtain a card at the Dean's office. The lectures are scheduled at 12 noon.

THE ADVISORY COUNCIL of the Medical Department (Under-Graduate and Post-Graduate) for the session of 1908-'09 has been announced, consisting of the two Deans and Professors P. E. Archinard, J. T. Halsey, E. D. Fenner, G. F. Patton and Wm. M. Perkins.

DR. HENRY BAYON has been re-elected Acting Professor of Anatomy for the session of 1908-'09.

DR. O. L. POTHIER has been placed in charge of the Laboratory of Pathology and Bacteriology for the session of 1908-'09.

PROFESSOR ALCEE FORTIER, head of the French Department of Tulane, has recently been honored by the degree of *Doctor of Letters* conferred by the Laval University of Quebec, Canada.

DR. FRANK H. WATSON has been granted one year's leave of absence by the Medical Faculty.

THE TULANE ATHLETIC ASSOCIATION has been incorporated, the charter filed and a strong and influential body has already been organized to further the spirit of college athletics.

THE RICHARDSON MEMORIAL DORMITORY was entirely filled the first week after the college opened.

THE NUMBER OF MATRICULATES in the Departments of Medicine and Pharmacy at the time the JOURNAL went to press was 462.

PROFESSOR A. CALMETTE, of the University of Lille, visited New Orleans and the Departments of the University during the month of October. Dr. Calmette created a most favorable impression upon those who were privileged to meet him and left a number of friends who were already admirers of his on account of his remarkable work in the Pasteur Institute at Lille.

THE MEDICAL PROFESSION is cordially invited to attend the Special Course of Lectures on the Ductless Glands, to be delivered by Prof. George Dock, on the dates scheduled below. All lectures will begin at 8 p. m., and the place is the Hutchinson Memorial, Canal street.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Medical Diagnosis. By CHARLES GREENE, M. D. P. Blakiston's Sons & Co., Philadelphia.

This is the second edition, revised, with 7 colored plates and 241 illustrations, of a manual for students and practitioners and constitutes one of the leather bound series of Medical Manuals issued by the publishers. The author has condensed the material, presenting in a graphic way the essentials of a diagnosis. It is a handy book. E. M. D.

General Medicine. Vol. I, 1908. The Year Book Publishers, Chicago.

The present volume is one of the series of ten issued at about monthly intervals and covering the entire field of medicine and surgery. Each volume being complete for the year prior to its publication on the subject of which it treats.

This series is published primarily for the general practitioner at the same time the arrangement in several volumes enables those interested in special subjects to buy only the parts they desire. E. M. D.

Disorders of Respiration and Circulation. By PROF. EDW. VON NEUSSER, translated by ANDREW MAC FARLANE, M. D. E. B. Treat & Company, New York.

This volume is part II of the well known clinical treatises on the symptomatology and diagnosis of disorders of respiration and circulation by Prof. Von. Neusser. It contains a study of bradycardia and tachycardia with bibliography. This is an important work for every physician as in practically every disease the cardiac action must be seriously considered.

The American edition now before us has been amplified by the addition of abstracts, upon and the bibliography of bradycardia and tachycardia, the work of Dr. Malcolm Douglas. E. M. D.

The Blues. Causes and Cure. By ALBERT ABRAMS, M. D., F. R. M. S. Third Edition. E. B. Treat & Co., New York, 1908.

This book is the third edition of the author's views in regard to the etiology of a certain form of neurasthenia.

While the views of the author are not generally accepted, the book is interesting reading. VAN WART.

Diseases of the Nervous System. By H. CAMPBELL THOMPSON, M. D., F. R. C. P. W. T. Keener & Co, Chicago, 1908.

This work, of some 500 pages, contains an exceedingly good, though brief description of the diseases of the nervous system. The introductory part contains practically all of the newer ideas in regard to sensation. The newer studies of the reflexes have been gone over, and incorporated. The most recent studies in the localization of the spinal cord and brain lesions are well reviewed. One notes a discussion of Marie's views on

aphasia. The chapters on the neuroses are rather short, and the book is rather wanting in this direction.

The whole book represents an exceedingly careful study of modern neurology, particularly of the views of the English writers.

VAN WART.

The Practical Medicine Series, Volume 10, Nervous and Mental Diseases.

Edited by HUGH T. PATRICK, M. D., and CHAS. L. MIX, A. M., M. D. Series 1907. The Year Book Publisher, Chicago.

This volume contains a brief summary of many of the important articles on nervous and mental diseases, which have appeared since the previous volume of this series.

To those not having access to large libraries, and who are interested in the progress of this branch, the book can be recommended as giving a summary of the more important work.

VAN WART.

Syphilis. A Treatise for Practitioners. By EDWARD L. KEYES, JR., A. B., M. D., Ph. D. D. Appleton & Co., New York and London.

It has been some time since any text book on syphilis has appeared in the English language, and we doubt if any ever has evidenced more care than this, not only in its preparation, but in the effort to present a modern text to guide the profession in a field so much neglected. We are glad to note the emphatic presentation of syphilis in types as opposed to periods. The author expresses himself so: "There is no such thing as a purely secondary or tertiary period of the disease"—a proposition the reviewer has taught for seventeen years. An excellent classification of syphilis is adopted. (1) Mild early syphilis; (2) malignant early syphilis; (3) mild but persistent syphilis; (4) relapsing syphilis; (5) malignant late syphilis; (6) mild late syphilis; under these heads are described in detail the types of the disease as recognized.

A full review of the *Spirocheta pallida* is given, and the author inclines to accept this organism as the cause of the disease, or at least a phase of the organism which is the cause of syphilis.

Several introductory chapters deal with the pathology, diagnosis and general care and treatment of the victim of syphilis. Then follow in some order descriptions of the organized evidences and types of the disease, each freely presented. The book concludes with a review of accepted theories regarding hereditary syphilis.

The strong personal equation injected everywhere in the book is a characteristic which in nowise detracts from the merit of the whole. The case references are largely drawn from the vast storehouse of the elder Keyes' practise and experience.

DYER.

Publications Received.

LEA & FEBIGER, Philadelphia and New York, 1908.

Progressive Medicine, by HARE LANDIS. Volume III. September, 1908.

Pathogenic Micro-Organisms, Including Bacteria and Protozoa by WILLIAM HALLOCK PARK, M. D., assisted by ANNA W. WILLIAMS, M. D. (Third Edition).

Anatomy, Descriptive and Surgical, by HENRY GRAY, F. R. S. Seventeenth Edition, by JOHN CHLAMERS DACOSTA, M. D., and EDWARD ANTHONY SPITZKA, M. D.

A Text-Book of Human Physiology, Theoretic and Practical, by GEORGE V. N. DEARBORN, A. M., Ph. D., M. D.

D. APPLETON & COMPANY, New York and London, 1908.

General Surgery, by EHRICH LEXER, M. D. American Edition Edited by ARTHUR DEAN BEVAN, M. D. An authorized translation of the Second German Edition by DEAN LEWIS, M. D.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1908.

Therapeutics: Its Principles and Practice, by HORATIO C. WOOD, M. D., L. L. D., thoroughly revised and rewritten by HORATIO C. WOOD, JR., M. D. (Fourteenth Edition).

WILLIAM WOOD & COMPANY, New York, 1908.

Text-Book of Nervous Diseases and Psychiatry, by CHAS. L. DANA, A. M., M. D., LL. D. (Seventh Edition).

THE REBMAN COMPANY, New York, 1908.

High Frequency Currents, by FREDERICK FINCH STRONG, M. D.

MISCELLANEOUS.

Report from the Pathological Department Central Indiana Hospital for Insane. 1903-1906. (Wm. B. Buford, Indianapolis, 1908).

Report of the Department of Sanitation of the Isthmian Canal Commission For the Month of July, 1908, by COL. W. C. GORGAS. (Government Printing Office, Washington, D. C., 1908).

Genito Urinary Diseases and Syphilis, by EDGAR G. BALLENGER, M. D. (E. W. Allen & Co., Atlanta, Ga., 1908).

Fourth Annual Report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis. Feb. 1, 1906, to Feb. 1, 1907. Edited by JOSEPH WALSH, A. M., M. D. (Published by Henry Phipps Institute, Philadelphia, 1908).

Treasury Department Public Health and Marine Hospital Service of the United States. Hygienic Laboratory. Bulletin No. 44, May, 1908. Report No. 2 on the "Origin and Prevalence of Typhoid Fever in the District of Columbia." (1907), by M. J. ROSENAN, L. L. LUMSDEN AND JOSEPH H. KASTLE. (Government Printing Office, Washington, D. C., 1908).

Pellagra A Preces, by PAST ASSISTANT SURGEON C. H. LAVENDER. Prepared by the direction of the Surgeon-General. (Government Printing Office, Washington, D. C., 1908).

Reprints.

The Clinical Significance of Uterine Deviation, by LUCY WAITE, B. A., M. D.

Disorders of the Umbilicus With Special Reference to the New-Born and the Infant; II. The Long-Waist and Her Movable Kidney; III. Umbilical Infections, by A. E. T. M. D.

Trichinosis of the Upper Respiratory Passages with Report of Cases, by JOHN EDMUND MACKENTY, M. D.

The Diagnosis and Treatment of Rheumatism and Allied Affections; II. The X-Ray in Dermatology; Or Truth and Fallacy Concerning X-Ray Dermatitis, by ALBERT C. GEYSER, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
FOR SEPTEMBER, 1908.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	5	1	6
Intermittent Fever (Malarial Cachexia)	8	1	9
Smallpox.....			
Measles.....			
Scarlet Fever.....	1		1
Whooping Cough.....	1	2	3
Diphtheria and Croup.....			
Influenza.....			
Cholera Nostras.....			
Pyemia and Septicemia	4	2	6
Tuberculosis.....	35	53	88
Cancer.....	22	1	23
Rheumatism and Gout	2	1	3
Diabetes	1	1	2
Alcoholism	1		1
Encephalitis and Meningitis.....	4	3	7
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	13	8	21
Paralysis	2		2
Convulsions of Infants.....		1	1
Other Diseases of Infancy	18	12	30
Tetanus.....	2	9	11
Other Nervous Diseases		2	2
Heart Diseases.....	37	24	61
Bronchitis		2	2
Pneumonia and Broncho-Pneumonia.....	14	7	21
Other Respiratory Diseases.....	3	3	6
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach	4	2	6
Diarrhea, Dysentery and Enteritis.....	17	15	32
Hernia, Intestinal Obstruction.....	1	1	2
Cirrhosis of Liver.....	6	3	9
Other Diseases of the Liver	2	1	3
Simple Peritonitis		2	2
Appendicitis.....	2	1	3
Bright's Disease.....	24	24	48
Other Genito-Urinary Diseases.....	2	3	5
Puerperal Diseases	6	5	11
Senile Debility.....	14	9	23
Suicide	8	1	9
Injuries.....	15	21	36
All Other Causes.....	275	221	496
TOTAL.....	287	233	520

Still-born Children—White, 5; colored, 17; total, 50.

Population of City (estimated)—White, 258,000; colored, 93,000; total, 351,000.

Death Rate per 1000 per annum for Month—White, 13.35; colored, 30.06; total, 17.77.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 29.97
Mean temperature 78.
Total precipitation 10.70 inches.
Prevailing direction of wind, east.

New Orleans Medical and Surgical Journal.

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No. 6

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desired. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Pellagra in the Southern States.

By DR. GEO. H. SEARCY, Instructor of Anatomy, Univ. of Ala.; Assistant Surgeon M. & O. Railroad, Tuscaloosa, Ala.; Formerly Assistant Physician, Ala. Insane Hospital, Tuscaloosa, Ala.

INTRODUCTION.

Since my report on pellagra, read before the Alabama Medical Association, in April, 1907, cases of this disease have been reported from North Carolina, South Carolina, Mississippi, Alabama and Texas. Within the last year I have visited nearly all of the Southern States and many of the Southern Insane Hospitals; I have looked for pellagra; I have talked to physicians in these various places, and have seen and recognized from the descriptions given me, cases of pellagra. So I am convinced that this disease prevails in every Southern State. Physicians tell me that it has been only within the last eight or ten years that they have seen any such disease, and since my observation began a few years ago, there has undoubtedly been an increase in the number of cases in

Alabama. I am now led to believe that pellagra must be on the increase in all the Southern States, and it behooves every Southern physician to familiarize himself with the nature and treatment of this disease.

DEFINITION.—Pellagra (*pelle*, skin, *agra*, rough—) is a condition induced by continuously eating damaged maize or Indian corn, manifested by disorders of the nervous system, derangement of the digestive system, and an erythema of the skin in certain parts of the body. The name is taken from the skin symptoms, but this I regard as the least important. Pellagra should be placed in the food poisoning class along with ergotism. It has been briefly described in American text books on skin diseases as a chronic disease of several years duration, but as it occurs in this country and in certain parts of Europe, it may run a very acute course or an extremely slow one.

HISTORY.—Pellagra has been known in Spain since 1755, following the introduction of maize from America in about 1700; it was found in Italy about 1750, in France about 1820, and in Egypt about 1895 (Sandwith). In certain provinces of Italy one-tenth of the population is thought to have the disease.

In the Americas, cases have been reported from various places in South America, and also from Mexico, but prior to my report of the epidemic at the Mt. Vernon, Ala., Insane Asylum, in 1906, no cases had been reported as originating in the United States. Sherwell met with a case in a sailor on a vessel in New York, and in 1902, Dr. Harris, of Atlanta, reported a case of anchylostomiasis with symptoms resembling those of pellagra.

This disease probably exists in every country where the poorest people live largely on maize or Indian corn.

In Alabama most of the cases have been seen at the Mt. Vernon Hospital. There were seventy-eight (78) cases there during 1906, thirty-six (36) during 1907; and thirty (30) up to September 1, 1908. At the Bryce Hospital there have been about 15 cases in all. During the summers of 1907 and 1908 I have had some 15 cases reported to me by physicians in different parts of the State. At Mobile, Dr. T. Gaines has had some five or six cases, and Drs. Bondurant, Henderson and others have each had a case or two. Mobile county, so far as I know, has had more cases than any other county in the State.

A good many of the cases in both hospitals have come into the hospitals with the disease already developed, showing that the disease is scattered all about the State.

ETIOLOGY.—The continuous eating of damaged corn has long been regarded as the cause of pellagra, while poverty, poor hygienic surroundings and exposure to the sun's rays have been given as predisposing factors.

A number of writers ascribe the disease to a certain toxic substance formed in the course of the decomposition of corn, under the influence of vegetable organisms. Others attribute it to the organisms themselves and consequently the various fungi and bacteria found on corn have all been incriminated in turn as the causative agents of pellagra. Lombroso claims it is an intoxication due to a substance similar to ergotin, formed by the growth of some fungus of corn, and that he has obtained extracts of damaged corn and produced experimentally symptoms similar to those of pellagra.

Samples of cornmeal thought to contain the toxin have been sent to the pathologist in charge of the laboratory of plant pathology at Washington, and he reported that the meal was made from moulded grain, showing quantities of fungi and bacteria of various kinds, some of which he identified, and that the meal should not be used for food. This meal was bought in Mobile, and supposed to be the best meal that could be obtained. It looked like first-class meal but when dampened and kept at a temperature of about 80°F., it would smell very sour and rancid within eight hours, whereas good meal should be sweet at the end of 24 hours (Sandwith).

All the meal I tested in this way in Mobile was the same.

During the epidemic at Mt. Vernon Hospital in 1906, as soon as the true nature of the disease was suspected, corn bread and grits were taken out of the patients' diet, and other things substituted and the condition began to improve right away. However, a set of eight persons kept on a diet with corn bread given in abundance, and within a few weeks one of these began to develop pellagra, and they all became so rundown in health that the corn bread was taken out of their diet also.

It was then getting late in the fall, but by the next summer six more of these cases showed more or less clearly this disease, and this fact, together with the experience with the corn bread during

the previous summer seemed conclusive proof that the corn bread contained the cause of pellagra.

The cases outside the hospital always give a history of being large eaters of corn bread.

In studying pellagra I have often been impressed with the similarity of this disease to ergotism. The onset, course and much of the symptomatology of pellagra resembles gangrenous ergotism in a good many respects, and knowing that gangrenous ergotism is caused from eating a fungus growth on rye one would naturally think pellagra was caused by eating some such substance on corn. In looking for such a fungus growth I find smut (*Ustilago*) resembles the ergot of rye very much. They are both fungus growths which develop their spores in the ovary of the host plant and grow out in spurs, taking the place of the grain. It would seem logical to me to call corn smut ergot of corn, just as you see ergot of rye, ergot of wheat, etc.

Parsons analyzed *ustilago* or corn smut and obtained an acid which he provisionally named sclerotic acid because of its apparent similarity to the acid (one of the active principles) found by Dragendorff in ergot.

Corn smut is said to produce abortion in cows and bitches, and Dorland has found that the fluid extract markedly increases the uterine pains in labor. I obtained an extract from powdered corn smut and by giving it hypodermically to a rooster, produced a darkening of the comb just as you get with ergot. My other experiments at Mt. Vernon with corn smut have but recently started, and have not given sufficient results to base any positive claim upon; I have many reasons, however, for believing corn smut to be the cause of pellagra. I believe I shall be able to give sufficient proof of this later, but this much is certain now—the analysis of corn smut shows active principles similar to those of ergot; both produce abortion, uterine pains, etc.; and both are fungus growths which develop and look very much alike. One grows on rye and causes gangrenous ergotism and the disease pellagra resembles gangrenous ergotism in many respects, and is caused by eating something which grows on corn, so it would seem reasonable indeed to think this substance was *ustilago* or corn smut.

In addition it is interesting to note here that pellagra is most prevalent after a wet summer, and corn smut grows best during a

wet season. Again, I understand corn smut is getting quite thick in Western corn, and of late years we have been importing more Western meal than formerly. The smut shows on corn after the grains have become well formed and in the West, where the grain ripens early or is gathered early, the smut spurs would be small and do not break through the husks so as to show, so lots of it would be overlooked and get in with the rest of the corn.

In addition to eating damaged corn the sun has been supposed to have much to do with the cause of pellagra as the disease is worse in the summer time and the skin lesions generally appear in those regions of the body most exposed to the sun's rays, as the backs of the hands and forearms, the face, back of the neck and backs of the feet. Different shaped patches of erythema have been formed on the backs of the hands by having the patient wear gloves fenestrated in various ways, and in one case at Mt. Vernon, a patient wore a leather band around his wrist and above and below this band the lesion was very severe, while underneath it was slight.

On the other hand, Neusser pointed out that the erythema generally affects only the hands and feet of Gypsy children in Roumania, although they go about perfectly naked. I have seen severe erythema on the feet of patients who wore shoes and on others who were exposed to the sun very little and about 10% of the cases have the disease on the genitals.

It is generally accepted now that the toxin affects the central nervous system, the disturbances in the trophic centers producing the skin lesions and the sun, to a certain extent, influencing their severity.

In the Mt. Vernon Hospital only about 10% of the cases have been among the men, and it is the most feeble-minded cases that are most often affected. Like many other diseases, much depends upon the stamina of the individual and the amount of toxin he happens to get. Some take the disease more readily and have it more severely than others.

SYMPTOMS.—In studying the symptoms the disease must be divided into the acute and the chronic forms.

The acute form first shows itself in a general run-down condition, lassitude, loss of flesh, weakness, and dyspepsia. This condition may be a few weeks or months in developing. It cannot

be definitely estimated, as it depends on the amount of the toxin ingested and the condition of the patient previously.

The characteristic skin lesions and those arising from the alimentary tract appear about the same time. The patient begins to have a profuse flow of saliva, the whole mouth looks red and sore, the tongue often looks denuded of epithelium, and there are digestive disturbances, tenderness over the stomach, and sooner or later, diarrhea.

About the same time there appears a deep red congestion or erythema on one or more of the exposed dorsal surfaces of the body, as the backs of the hands and lower forearms, dorsal surface of the feet, back of the neck, the cheeks, and occasionally the genitals.

The skin in these regions takes on a dark red or congested hue, with no pain and but slight burning or itching sensations; most usually it is a dead feeling, with all sensations dulled in these parts. In a few days vesicles or bullæ may form, and later break and peel off, leaving a raw, weeping surface, which, if the patient survives, gradually heals, leaving a thin, silk-like skin. When vesicles and bullæ do not form, the skin dries and desquamates, leaving a rough, mealy skin, which slowly smooths over.

The skin lesions are very symmetrical. When on the back of one hand or foot or cheek you will find a like patch on the other. It rarely extends more than six inches up the forearm. It sometimes is found on the elbows, and in about 10% of the cases on the genitals. I have never seen it on such flexor surfaces as the palm, the bend of the elbow, axilla, or soles.

Along with the salivation, diarrhea, skin lesions, etc., come the mental and spinal symptoms, but these are not so marked in the early acute attacks, as they develop when the disease becomes chronic. Even at first, however, there is some dullness and depression noticed, very much as you find in any severe intoxication. This dullness and depression seem more marked among the insane cases than those outside the hospital.

The other nervous symptoms are pain or tenderness on both sides of the spinal column, especially in the dorsal region, and at first irregular, exaggerated patellar reflexes, but later dulled or absent reflexes. There is usually also insomnia of marked

degree, and there is tenderness over the stomach, and in women pain or tenderness over the uterus.

The arterial tension is at first increased and the pulse rate a little above normal, and this goes up or down with the temperature. The temperature in uncomplicated cases rarely goes above a degree and a half above normal, and often gets subnormal. The urine often shows a higher specific gravity than normal, due probably to the fact that the patient takes very little fluid, and so there is a diminished amount of urine passed. The blood shows anemia, but nothing characteristic.

Bacteriological examinations have proven negative, and examinations of the stools of the Mt. Vernon patients have not shown a single case of hook-worm infection.

The fatal cases may prove rapidly so in a few days from the time they take to bed, or they may run on several weeks with the salivation, diarrhea, sore hands or feet, etc., the pulse gradually getting weaker and the patient finally dying from general weakness.

When recovery follows, convalescence is very slow; the patient remains weak and more or less dull a month or more, and for several months remains below normal.

The mild cases may never go to bed, but sit about in a dull, listless manner, look weak and emaciated, with red tongue and mouth, spitting a great deal, the hands or feet or some of these dorsal surfaces showing the dry, mealy skin or the red, weeping surface, giving little or no pain or discomfort, and, lastly, with more or less diarrhea.

The Chronic Form.—These cases will usually give a history of attacks during previous summers. With every attack the erythema leaves a little more pigment and thickening behind it until chronic atrophy takes place, showing where the eruption has been. The affected skin will then look wrinkled, like that of an old man. In the later attacks fewer vesicles form and the eruption is mostly of the dry, scaly type.

During the first, and even the second, year of pellagra in an individual of average intelligence no definite mental symptoms are noticed, but after that he becomes decidedly stupid and somewhat melancholic, taking little interest in anything beyond his food and sleep. As the disease progresses these mental symptoms may be-

come more definite and there may also be hallucinations and delusions of such prominence as to cause the patient to be confined in an asylum.

The usual ending of these cases showing such marked mental symptoms, and which do not respond to treatment, is in secondary dementia (Sandwith).

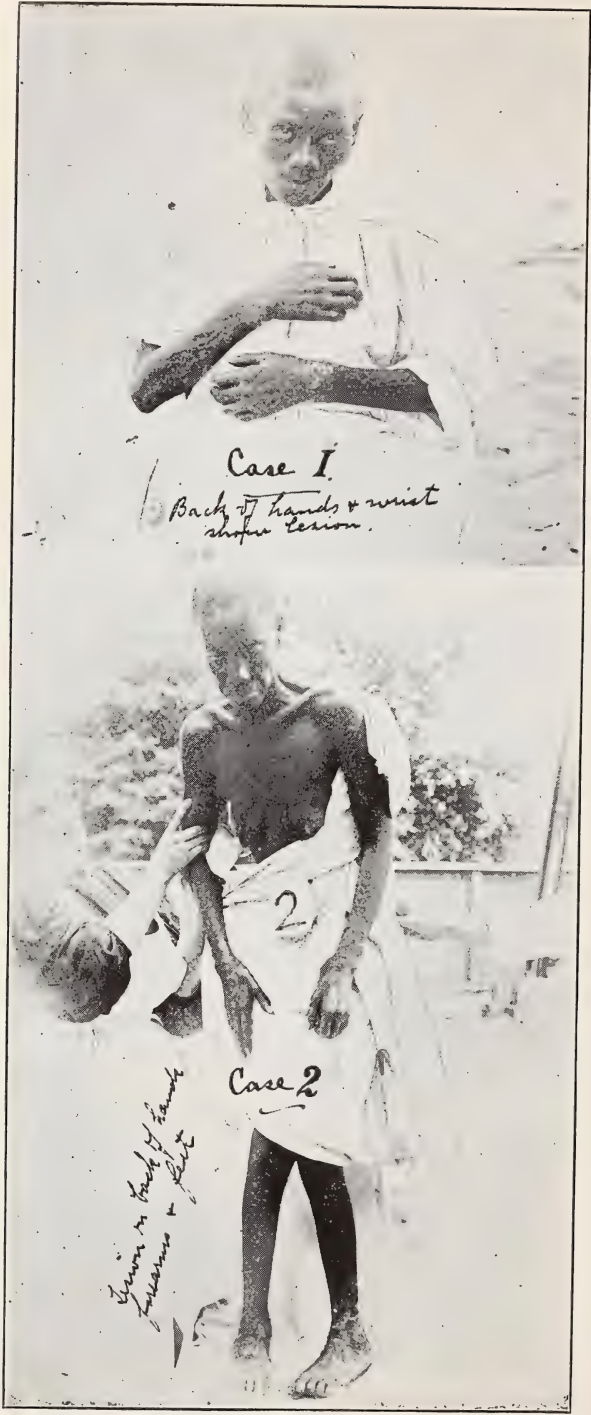
These chronic cases may, after they have become bedridden, develop contractures of the fingers or the lower limbs, or even paraplegia (Sandwith). They always retain control of the bladder and rectum and rarely have bedsores.

During the exacerbations of the chronic cases the red mouth and tongue may not be so pronounced as at first, but there is the weakness, emaciation, disturbance of digestion and always more or less diarrhea.

DIAGNOSIS.—The disease is to be differentiated from ergotism, scurvy, acrodynia, purpura, erythema multiforme and allied conditions. The characteristic sign of pellagra, the peculiar locations of the skin lesions, as backs of hands, lower forearms, back of neck, face and dorsal surfaces of the feet; the character of the skin lesion, an erythema followed by vesiculation or desquamation and some pigmentation; the disturbance of the alimentary tract, salivation, red, denuded tongue, indigestion and more or less diarrhea; the mental dullness and depression; the absence of any swelling or hemorrhage of the gums—all these differentiate it from anything else. If to these is added the fact that the patient has lived largely on corn products, the diagnosis becomes more certain.

PATHOLOGY.—In the rapidly fatal cases, the pathological findings will be great emaciation and anemia, some fatty degeneration of the internal organs, pachymeningitis and degeneration of the post nerve roots and the posterior columns of the cord; also in the dorsal region, the lateral columns, and, lastly, those changes in the skin following the varying degrees of erythema.

In the chronic cases, in addition to the marked emaciation and anemia, there will be found atrophy of the skin in the parts affected, atrophy of the walls of the stomach and bowels, and atrophy of all the internal organs, also with the changes in the spinal cord and post nerve roots more marked than in the acute cases.



PROGNOSIS AND TREATMENT.—The prognosis is always grave; the mortality in the Mt. Vernon Hospital has been 58%. Death in most cases came in from two to three weeks from the time they went to bed. Some die in less than a week, and a few had attacks each summer for two or three years.

Recovery is very slow in all cases, the patient remaining for months feeble and more or less dull and depressed.

As to treatment—take the patient off all products made from corn and substitute a good liquid diet and good hygienic surroundings, but not a bright sunlight.

As for drugs—strychnin and pepsin preparations are indicated; when the diarrhea is profuse, opiates, bismuth, etc., are indicated.

The remedy "*par excellence*" for the disease is arsenic, and given hypodermically in the form of atoxyl, in $1\frac{1}{2}$ grain doses, once a week, gradually increasing to two grains at a dose once a week, will often bring about improvement.

CASES.—CASE 1. Louise W. Age 18.—Admitted to Mt. Vernon Hospital June 19, 1908, suffering from acute mania of three months' standing. Showed no evidence of pellagra on admission. Pellagra first showed about July 20. This picture was taken August 14. Patient had then become dull and depressed; was very weak and emaciated. Skin lesion only shows on the back of her hands and wrists. The epithelium has peeled off in spots, leaving a raw surface. She had profuse salivation, red mouth and tongue and some diarrhea. She never complained of any pain, and the backs of her hands had all sensations dulled so that she hardly noticed a pin prick. However, there was tenderness on pressure over her stomach, uterus and along the spine. She continued to gradually grow weaker and died August 26.

CASE 2.—Mary L. Age 35. Admitted to Mt. Vernon Hospital November, 1906, with secondary dementia. General health was fair on admission. During summer of 1907 became weak, anemic and in general run-down health, and in November developed pellagra. Skin lesions showed on the back of her hands and feet and neck, and also had the other characteristic symptoms. She was sick several weeks and never fully recovered, so that the next summer, June, 1908, she had another attack. This picture was taken August 14, and she had then been sick about two months. She was extremely weak and emaciated; mentally she was very

dull; her mouth was red, tongue looked denuded of epithelium and there was a profuse flow of saliva; there was also tenderness over the stomach, uterus and along the spine, and she had more or less diarrhea. A transfusion of blood from another case that had recovered from pellagra was done by Dr. E. L. McCafferty of the Mt. Vernon Hospital a few days prior to the time this picture was taken. She began to improve at once, and by September 15 was pronounced fully recovered, was fat and looking almost as well as ever.

CASE 3.—White woman in Bryce Hospital at Tuscaloosa. Had been in the hospital two years. Was dull and simple-minded all the time. Showed pellagra first about the latter part of July, 1908. This picture was taken about two weeks later. The skin lesions showed on the back of her hands, forearms, elbows, face and neck. The erythema was followed by desquamation and a dry, rough skin. She had the red mouth and tongue, diarrhea and some soreness along the spine and tenderness over the abdomen. She improved under the atoxyl treatment.

CASE 4.—Pauline B. Age 31. Admitted to the hospital October, 1907. Mental condition, simple-minded. She remained healthy and well up to July, 1908, when she lost appetite, became more dull and stupid, and about July 25 first showed symptoms of pellagra. This picture was taken August 14, when she showed an area on the back of each hand where epithelium had desquamated. There was still the red mouth and some excess of saliva, but she was improving rapidly, and by September was pronounced well.

CASE 5.—Isora B. Age 39. Admitted to the hospital June 6, 1908. On admission was dull and depressed. She was anemic, weak and in a run-down condition physically. She gave a history of having had, during the summer of 1907, a disease which was diagnosed typhoid fever, but from her description tallied with pellagra. In July, about a month after admission in the hospital, she developed pellagra, and when this picture was taken (August 14) she had nearly recovered. She relapsed again, however, about the first of September, and when this paper was written (September 22), was apparently in the last stages of an acute attack, extremely weak and emaciated, salivation, diarrhea and sore hands and forearms.

CASES 6 AND 7 are pictures loaned by Dr. Sandwith of London, and show Egyptian children with pellagra. The skin lesions are shown on the backs of the hand and feet, the forearms and the face. This condition is identical with what we have in the South.

In conclusion, I wish to acknowledge my indebtedness to Dr. E. L. McCafferty, physician in charge at the Mt. Vernon Hospital, for his interest and assistance in my investigations. I wish especially to emphasize the fact that pellagra is present in the South and that there is an urgent need for a thorough investigation by the Government of the cause of pellagra so that some measures may be taken to check the disease before it gains too firm a foothold in the United States.

The possibilities and probabilities of its spread here are great, for, as the population becomes thicker and necessarily poverty becomes more frequent and more pronounced, cornbread will form the chief article of diet for many, and pellagra will naturally follow.

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Nervous Hygiene and the Control of Nervous Impulse.*

By E. M. HUMMEL, M. D., New Orleans.

The functional peculiarities of nerve tissue are self-nutrition and irritability. By means of the first of these functional qualities we resist wear and tear and disease, we maintain life, by the latter we adapt ourselves to our environment. The manner in which a person is nervously endowed determines how he will react to his environment and his environment furnishes the circumstances to which he must react. These are the two great determining factors of our lives.

The highly developed state of the human brain secures to man supremacy in the animate world, but the same condition exposes him to susceptibilities and dangers he would otherwise escape. By virtue of our superior nervous endowment it is given to us to

*Read before Louisiana State Health Conference, Alexandria, April 2, 1908.

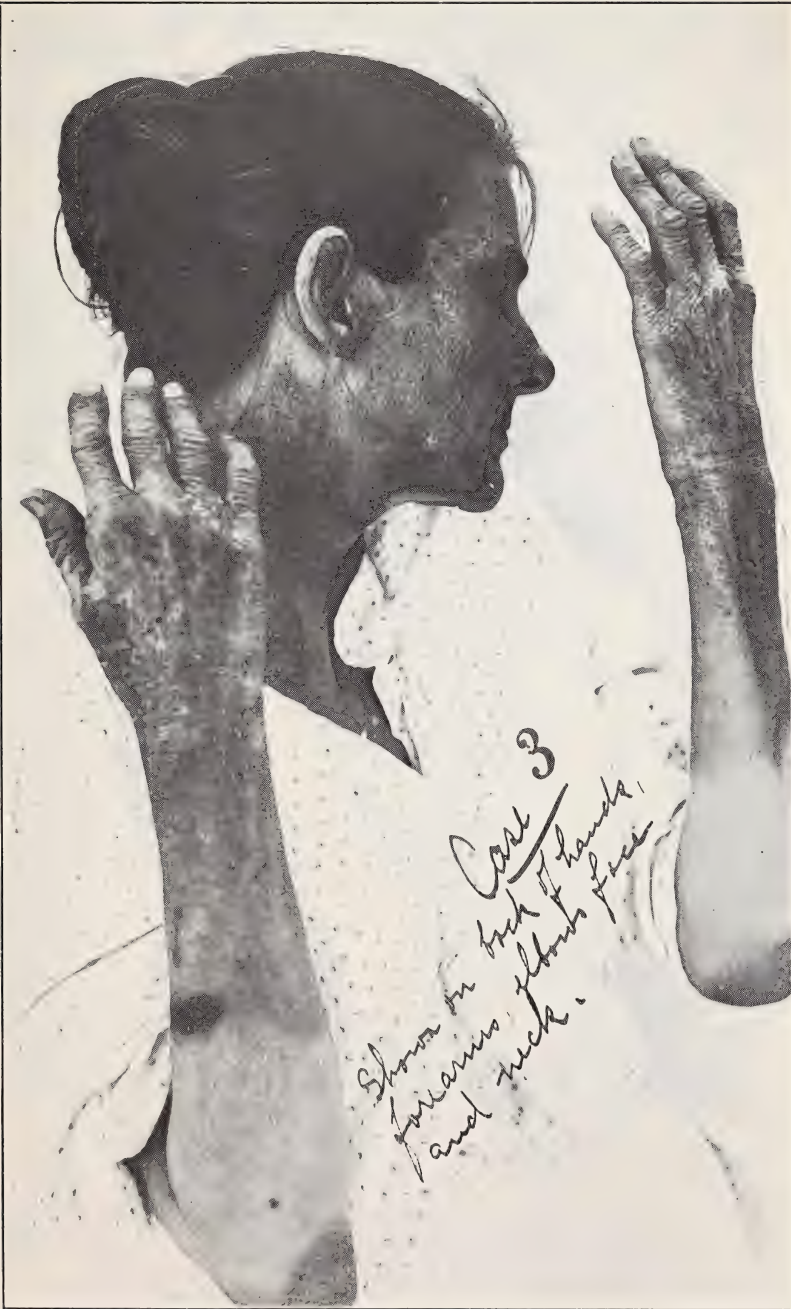
realize vast opportunities—and temptations. Most of man's troubles have come of his failure to discriminate nicely between an opportunity and a temptation. So that our fine brains are at once our strength and our weakness. The penalty we pay for possessing superior intelligence and a broad scope of consciousness is that we are compelled to appreciate a greater number of painful as well as pleasurable impressions.

All body functions are nervous functions upon last analysis, hence an attempt to discuss every phase of the question of nervous hygiene would involve a discussion of the hygiene of the whole body.

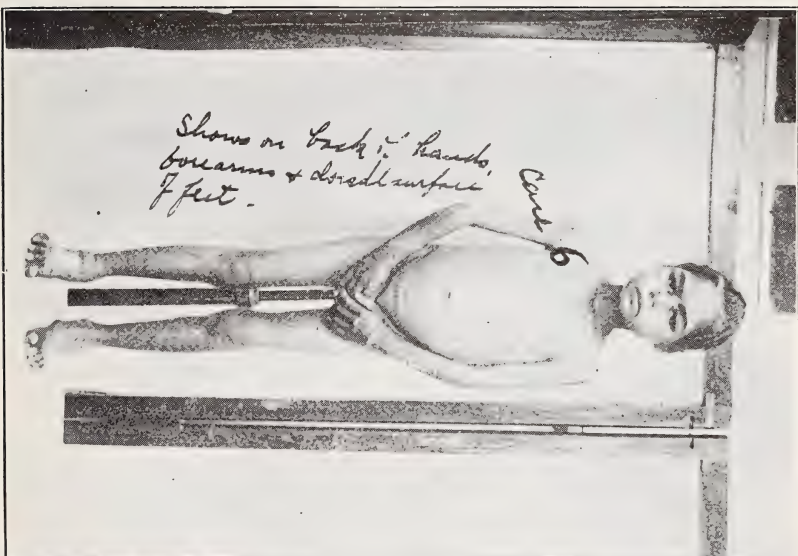
I shall be content to touch upon a few facts relative to the development and physiology of the human nervous system and endeavor to draw some useful inferences. The nervous system of man is not fully matured until he has reached the age of 35 or 40 years. Rather a long childhood, if you please, but fortunate for us, as it gives great advantages in many ways. But while the sensitive nerve mass is growing, it is less resistant to disease, and while taking on new functions it is more liable to disorder.

We are born into the world weak and puling, without knowledge, or conscience, but with a marvelous capacity for developing both. An infant merely inherits a mass of feebly-formed nerve matter with a few rudimentary functions and a tendency to develop in certain directions, in other respects he is a blank. During his prolonged childhood "the building up of the brain and nerve faculties of man is accomplished by physical and moral impressions and reflexes, while the brain is, so to speak, in a plastic state and largely through general and special sensibility, acting conjointly with the emotions."

The child acquires knowledge by experimenting with the things he finds about him, and he obtains skillful co-ordinated control over muscular movements by practice. However at some periods of childhood the child is busier in some directions than others. During the earlier years he is much occupied in learning the various purposive movements of his arms and limbs, and certain nervous disorders characterized by disturbances in the motor sphere are predominant then. While the child is learning the difficult feat of balancing himself on his feet and performing locomotion, he is liable to contract infantile paralysis; which though an infectious disease, nearly always occurs at this time because the nervous me-







chanism subserving the movements of walking are then hard worked. Chorea is another motor disturbance limited to children, presumably because the child is then busiest acquiring motor education. So also in regard to spasms or convulsive conditions. These are spinal cord affairs.

Later on the stress is carried to the brain. Some time during its teens the child passes rather suddenly from childhood into incipient man—or womanhood. Mind you, he is not yet a man, though his physical status has attained adult proportions, but the world begins to treat him as such, and he thinks he is. He has merely begun to put away childish things and enter a larger, bigger world. New elements are introduced into his psychic life; he is lured by new affinities and finds himself called upon to adjust himself to strange and varied circumstances.

These are critical times and most important it is to understand the mental problems presenting. Those who have the care and education of children should know something of the science of mental evolution—how the psychic attributes unfold themselves, what the special susceptibilities are during development—so as to better fit themselves to train the youthful mind into safe and useful channels.

The effectiveness of an education depends upon how correctly the training is directed toward curbing baneful tendencies and how well it falls in with the useful aptitudes. Further, as a caution against oppressive courses in study, I will call attention to the fact that the nervous mechanism subserving the recently acquired functions are weakly organized and for that reason easily disarranged. A certain mental disorder develops with terrible frequency during adolescence. The child-man is called upon to subdue proclivities which are counter to his welfare as well as strive to attain useful knowledge, and just now he needs most badly the intelligent and sympathetic advice of his teacher or parents. If actual mental dissolution does not take place, what is still regrettable, he may contract mal-adjustments in the now forming character, which will last him as mental blemishes throughout his life, not only impairing his usefulness, but rendering him a misfit in the society of his fellows. Adolescence is a vast and complicated subject. Its study gives us a splendid insight into character formation in the future man or woman.

After a man is 40 he has become hopelessly one thing or another. There is no longer any use trying to dent him with education. About the best turn we can do him is to keep tab on what he eats and drinks—especially what he drinks. Excesses in eating are quite often the result of using alcoholic beverages and peppery condiments, with which people irritate and even inflame the mucous lining of their mouths and stomachs, to create morbidly excessive appetites. Hunger for food and thirst for water are the expressions of natural affinities which we feel for substances needful in maintaining body metabolism. But why should a man deliberately imbibe alcoholic or narcotic substances, few of which taste good, and for which he has no organic affinity? Evidently for effects. As far back as we have any record of the *genus homo*, we find him fermenting the juice of some fruit or vegetable to introduce into his stomach and to make merry, with a resultant complementary headache the next morning. Even the bibulous devotee admits that it is a dissipation. Men are supposed to be guided by rational considerations; but are they? To make the best trade with the circumstances of their lives, but do they? Why should sane men wish to absorb a substance which they know will destroy their finer attributes, and place them at the mercy of their coarser instincts? It would seem that the perplexity of our lives and the extreme development of our sensibilities expose us to many painful states of consciousness and cause us to appreciate the impact of adversities rather too keenly. In a pessimistic frame of mind a man surveys his lot and finds it hard; so he abandons himself to the juice of the grape, which he knows will dull his sensibilities and banish his troubles, permitting him to believe what his heart desires. Give a man a few mixed drinks and the world is his. You can tempt a man with anything that promises him a little exhilaration, provided it does not kill him outright. He don't mind the slow process. In view of this inherent weakness—as a defense against the alcoholic evil, it would seem necessary to legislate against commerce in strong drink to effectively quarantine against its entrance into men's mouths.

Temperance in all things, rest when it is imperative, instead of goading jaded nerve cells with stimulants, a due regard for the limitations and requirements placed upon him, by the natural laws which determine his organic integrity and existence; these are some of the things a man should know and heed for his good.

Practically all the stress of living a civilized life is thrown upon the mind or its material basis, the brain. If we cope successfully with our complex environment, we must bother our heads. The man who surpasses is the one who conserves his vital energies and maintains a sure rein over his impulses, subordinating everything to the dictates of reason.

If we would understand the perennial puzzle, human nature; if we would account for some of man's frailties and inconsistencies, we must remember that we all carry about in our mental make-up psychic rudiments, vestiges of racial habits or characteristics pertaining to conditions in which our progenitors lived. Our lives have changed, and we now have new aims and ideals, but the stubborn laws of heredity have not permitted us to change *pari passu* with the demands made upon them. As a result our natures do not coincide with the ideals to which we strive to attain, consequently many disharmonies obtain between ourselves and what we pretend to be. We struggle along imperfectly, cumbered by ancient attributes, and we must reckon with such feral instincts within us if we wish to prevail over them. How often do we see strong men, under the stress of panic, when their lives are threatened, trample helpless women and children, and show themselves the barbarians they really are in the deeper strata of their natures. But we do not have to wait for extraordinary events to find people falling short of what they should measure up to in society and before the law.

The law is a code which encroaches upon individuality for the aggregate good. If one would wish to conform to the conditions of civilization he must learn to subdue his ego. Transgressors against the law often incur their guilt while following some natural impulse. Many sins are pleasures which cost too dearly. While seeking our individual interests we cannot afford to give way to our inclinations without restraint, for the law appeals to the rational man to abstain from a forbidden course of conduct by making its consequences more dreadful than desirable. From these observations it is obvious that impetuous conduct must be controlled in the interest of our health and freedom. The same kind of conduct required of a man to keep well will keep him out of jail.

If a sick man is an encumbrance, an ill-behaved one is a menace. Those who offend habitually against the law are coming to be regarded as sick or defective people, instead of sinners. It is

sometimes puzzling to know when to blame a man and when to give him a dose of medicine. Suffice it to say that those who cannot live comfortably under the restraint of civilized social life need advice, and may be treatment.

Few of us succeed in adjusting ourselves to the complex circumstances of a civilized mode of life with success, so that we find ourselves getting too much friction out of life or running counter to things we cannot change. Of the various influences that compass us about, some we must ally ourselves with, some we must resist, and some dodge. Many men impair their health and spoil the effectiveness of their lives by failing to square themselves with their circumstances or control their nervous forces properly, as the result of which there arises a discordant interplay between varied impulses which either neutralize each other or give rise to mental lopsidedness or eccentricities; others never avail themselves of their capabilities, because their mental lives are made painful and hampered by unassimilated experience. The psycho-neuroses which make those so afflicted very unhappy and sick nearly always arise out of a disordered interplay of the psychic forces or abnormal sensibilities. We often see people who should, according to their physical assets, be strong and virile, facing the obstacles of their daily lives with resolution, whining about their health. The spirit of our times, when everyone is so concerned about his physical welfare and so fond of discussing his bodily aches, together with the advertisements of quack doctors reciting in their horrible details the ills that threaten everyone of us if we just knew how to discover them, are partly the cause of such spectacles. People so ailing are not really exhausted nor are they organically sick. Owing to an unfortunate temperament they have yielded to their acute sensibilities and allowed themselves to be suggested into unhappy states. They need to be re-educated back into normal conceptions as to their health.

Our vegetative functions, the action of our internal organs, are performed under the direction of our sympathetic nervous system, and we are not supposed to be conscious of them, much less concentrate our attention upon them. The minute a man turns his attentions inward upon himself, trouble is almost certain to ensue. He will surely find something wrong, or what usually happens, the function subjected to conscious contemplation be-

comes deranged because of the interjection of mental impulses. People therefore have no business to indulge in introspection. It makes nervous invalids and cowards of us all, and robs us of courage and resolution, making us victims of phobias, and causing us to skulk about in dejection, dreading discomfitures which would never visit us unless we invited them.

Address at Opening of Free Tuberculosis Clinic.

By S. E. CHAILLÉ, M. D., New Orleans.

Of more than a thousand different diseases and injuries that threaten health and life, tuberculosis, especially of the lungs (usually called consumption) maintains its frightful preëminence; preëminent in its annual number of deaths, from one-tenth to one-seventh of all deaths, surpassing the far more dreaded yellow fever or cholera; preëminent in the number incapacitated for profitable occupation; preëminent in the waste of useful labor, estimated at from \$300,000,000.00 to more than \$1,000,000,000.00 annually in the United States; and horribly preëminent not only in the painful and protracted devastation of health and life, but also in the woeful anxiety and grief inflicted on its victims and on all who love them. Consumption daily causes tears enough, if confined in this room, to drown us all. Thousands of families are still being driven by consumption to the destitution and misery which often result in sin and crime, and in this and other ways incalculable injury is inflicted on the public. Persistence in the endurance of this monstrous injury is now excusable solely on the plea that our ancestors submitted to it, believing it due to God's will, and *not* due, *as it is*, to man's ignorance and negligence.

Medical science teaches the simple means requisite to rescue mankind from this woeful scourge. By far the most important of these preventives is fresh, pure air, purified above all else of the many billions of infectious germs that are daily expectorated by the poisoned victims on floors, walls and the ground, and into the air. Fortunately, many of these billions of germs are destroyed by sunlight and fresh air, and many gain access into the bodies of persons, insusceptible at the time to consumption, and are destroyed; but unfortunately many of these germs gain access into the bodies of those who, by heredity or by the agency of pneumonia, influenza

and other unfavorable conditions, are susceptible and develop consumption. The germs are easily killed—if you can catch them. How catch them, when here in New Orleans, not less than three thousand persons are every day expectorating their morbid germs into their homes and everywhere else to infect and condemn to woe thousands of those now healthy and happy. Farther, the efficient execution of the requisite preventive measures is very difficult because dependent on very many individuals of whom a great majority are ignorant, careless and moneyless. Consumption afflicts especially the ignorant and destitute, and to these is chiefly due the infection of those who have the knowledge, care and money indispensable for the protection of both the individual and the public. Hence, warfare against this scourge should be waged, especially for the benefit of the ignorant and destitute.

Three agencies are indispensable: sanatoria, to which the curable can be removed, thereby protecting the public, and at the same time securing for themselves all things requisite for their recovery; special wards in hospitals to which the incurable, and these are the most dangerous, can be removed, thereby protecting the public and at the same time securing for themselves proper care; last and most important, a dispensary to direct the curable to sanatoria, the incurable to hospital, and to provide medical supervision and aid for the greatest number (probably nine-tenths) of the afflicted, who will not go either to a sanatorium or a hospital, to visit them at their homes, to teach them and their families how to care for and to protect themselves and thereby to protect the public.

Only in very recent years has the supreme importance of the anti-tuberculosis dispensary been appreciated, hence most of them have been established during the last two years. The rapidity of their development proves conclusively their great usefulness to the public. The number of these dispensaries in the United States is now one hundred and fifty-eight, located for the most part in cities. The benefit conferrable on the public by a dispensary must vary with its financial support, and the providing of this support is of paramount importance. Some of the 158 dispensaries are supported by voluntary contributions to anti-tuberculosis associations; some are supported by hospitals and some by Boards of Health, but the best example by far of what the public should do to support such dispensaries is presented by the State of Pennsylvania

which, in 1907, appropriated \$400,000 to establish an anti-tuberculosis dispensary in every one of its 67 counties.

This dispensary, the first of its kind in Louisiana, as well as a sanatorium, are chiefly due to Dr. Edward L. McGehee my former pupil and greatly valued friend, the President of the Louisiana Anti-Tuberculosis League, and to his highly appreciated colleagues. Both institutions signally deserve the financial support of this State, of this city and of its every patriotic citizen, for, these institutions are for the protection of the health and life of every resident and of every visitor and preëminently for the public good. Had I the requisite influence every one present and every citizen would annually contribute to the support of dispensary and sanatorium, until city or State, or both, should amply maintain and develop them; and in the meantime the *Picayune's* Loving Cup should be bestowed on Dr. McGehee, to encourage him and his unpaid associates to persevere in their humane and unselfish labor for the protection from infection of every home in New Orleans and for the better health and greater prosperity of our well-loved city.

Roentgen Ray Diagnosis of the Diseases of Bones and Joints.*

By AMMEDEE GRANGER, M. D., New Orleans.

Since the discovery of the X-ray by Roentgen in 1895, and its practical application to the diagnosis of fractures and to the detection of foreign bodies, its field of usefulness as a diagnostic agent has steadily enlarged with the improvements, apparatus, and operating technic. The latest advance, and I believe the most important, is its use as a practical and almost infallible means of diagnosing the diseases of bones and joints.

Without detracting from the value of the X-ray in locating calculi and foreign bodies, in the diagnosis of affections of the thoracic viscera, and as a guide to the proper treatment of fractures, its superior advantage to the surgeon in establishing the diagnosis of the affection and the extent of bone and joint involvement before operation, enabling him to make a prognosis and to select the proper treatment, becomes at once apparent, and of immense importance to the patient.

*Read before the Orleans Parish Medical Society, August 8, 1908.

The details of operative technic when making the X-ray negative have no place in this paper, as we are only concerned with the correct interpretation of the negative. To accomplish this it is essential:

1st. To be familiar with the appearance of skiagrams of normal individuals taken at different ages. Unless the normal shadows are known, it is impossible to detect abnormal ones. This is especially true in the case of children's joints, where mistakes would certainly be made, owing to the fact that ossification does not take place until later in life.

2d. To be familiar with the pathology of bones and joints. This is important, because as will be shown throughout the discussion of the various diseases the abnormal X-ray shadows are always easily accounted for by definite pathological change in the bone or joint.

3rd. A correct appreciation of the various shades of the shadows seen on the skiagraph. Always bear in mind the fundamental law which makes those shadows vary in density, according to the greater or lesser quantity of X-rays which reach the sensitized plate in composite parts like the human body, those tissues having higher atomic weight or whose structure is more compact, permit less rays to pass through and show a denser shadow on the plate or print than those of lower atomic weight or less compactness in structure.

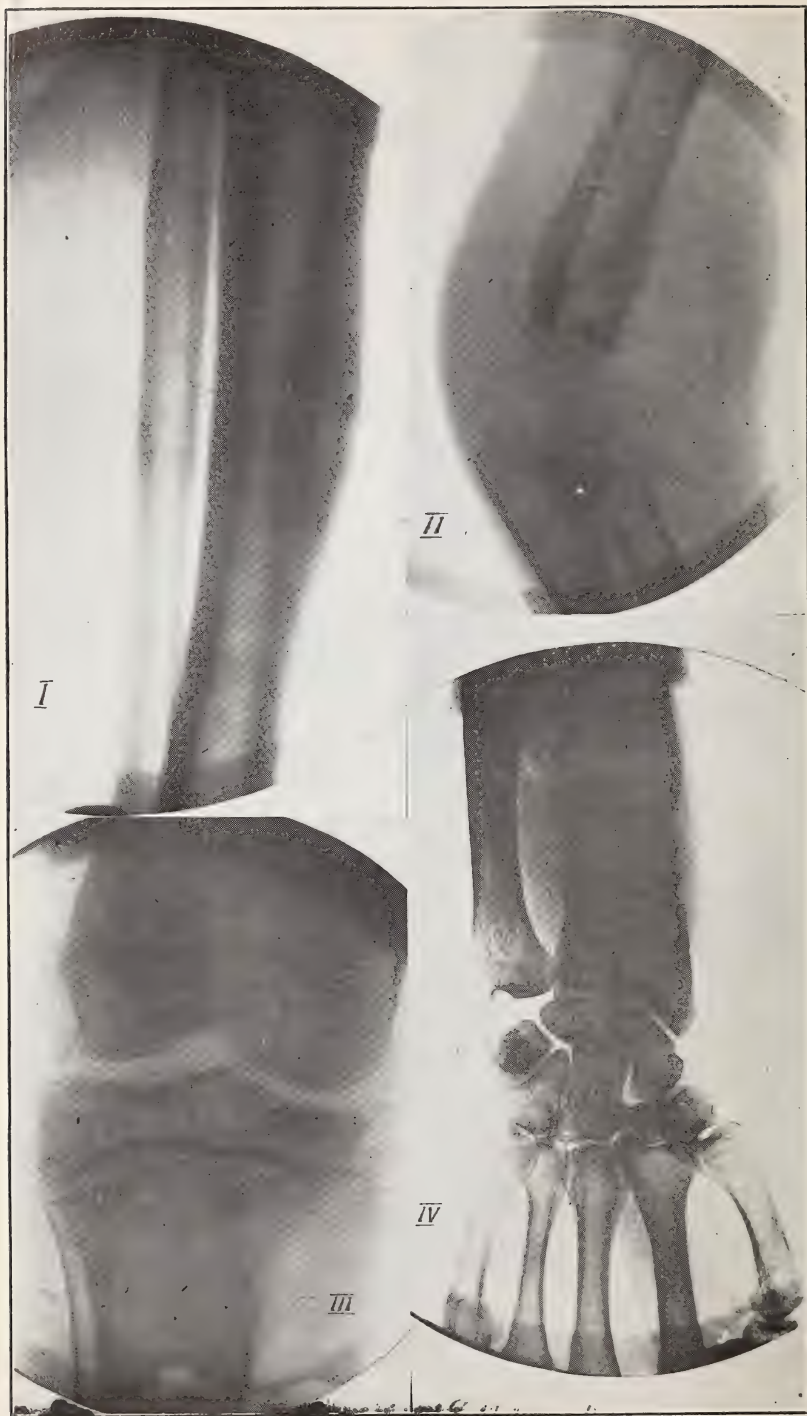
From the foregoing what follows becomes self-explanatory. The shadows of children's bones are lighter than those of the adult.

New bone formations, callus, cartilage before ossification, throw a shadow which is only slightly more dense than that of the surrounding soft parts but becomes denser as ossification takes place. In such diseases as rickets, where proper calcification does not take place, tuberculosis, where we find absorption of the lime salts and a rarifying osteitis, the bone shadow becomes paler than normal.

In syphilis, around bone abscesses, the walls of circumscribed osteomyelitis, we find a denser bone shadow, due to bone sclerosis.

Effusion and extravasation cause shadows the density of which depends upon the nature of the effusion or extravasation.

Hemorrhages, producing blood cysts or pigmented areas of extravasated blood, so commonly seen in sarcoma, show as irregular shadows, which are of considerable diagnostic importance.



DR. GRANGER'S Article.

With these few general remarks I shall pass to the consideration of the individual diseases.

Periostitis (Plate No. I): Periostitis can only be distinguished on the radiogram when there is considerable thickening of the periosteum or some exudate existing between it and the bone. It is then recognized as a circumscribed shadow, darker than the normal soft parts. This shadow may be large or small, entirely surround the bone or appear only as a raised dark shadow upon one of the bone surfaces. If there is secondary involvement or caries of the bone this will also show plainly in the radiogram. The results of periostitis, the formation of fibrous or osseous tissue between the periosteum and the bone, can also be plainly seen as dark circumscribed areas next the bone.

Osteomyelitis (Plate No. II): Osteomyelitis usually affects the shaft of one of the long bones, it may be in close proximity to the joint, but rarely involves the latter, except secondarily in cases of long standing. It is recognized on the radiogram by the lighter area of bone and marrow rarefaction, the surrounding darker areas of bone condensation and in some cases the presence of sequestra.

The affection causes a softening of the marrow and a suppurative osteitis, which in some cases become circumscribed by a process of osteosclerosis. The periosteum is usually swollen and edematous.

In other cases the medullary cavity becomes involved as the pus accumulates and the walls of the bones may be broken through permitting the discharge of pus outward, with secondary involvement of the soft parts. As a result of these changes, necrosis of greater or lesser portions of the bone may ensue with the formation of larger or smaller sequestra.

In more malignant cases the entire bone marrow becomes involved. The cancellous of one or both of the epiphyses usually becomes involved and secondary involvement of the joint may result. In young persons the epiphyses very frequently become separated from the diseased shaft by the destruction of the cartilage which binds them together.

Tuberculosis (Plate III): Recognized on the radiogram by the paler hue of the bone shadow, the atrophy of bone, the epiphyseal prominence and, in the later stages of the disease, bone destruction.

Primary tubercular infection of the shaft of bones rarely oc-

curs, except in the phalanges, metacarpal and metatarsal bones. It occurs most frequently in early life and is often associated with involvement of the joints. The tuberculous process causes a disappearance of the lime salts associated with a rarifying and formative process in the bone. This new tissue formation is simple granulation tissue. Whether in or near a joint, the disease often simulates epiphyseal growth, which shows on the radiograph as enlarged, pale and squared, when compared with the normal size. As the process advances bone destruction takes place, with sometimes the formation of sequestra. The pus cavity may become circumscribed by a process of bone condensation or may invade the joints and soft parts.

Syphilis (Plate No. IV): Distinguished on the radiogram by the darker hue of bone and the thickened and irregular outline of the periosteal covering, due to the condensing osteitis in and on the surface of the bone and the deposit of new bone under the periosteum. The disease usually commences in the periosteum, which becomes thickened and infiltrated, with or without the formation of the matter. As the disease progresses, the channels in the bone, enlarged by a rarefying osteitis, forming irregular defects, are filled with new fibrous tissue. The process is not infrequently associated with suppuration and the necrosis of a larger or smaller portion of bone.

Osteo-Sarcoma (Plate No. V): Osteo-Sarcoma is recognized on the radiogram by a shadow usually paler than that of normal bone and resembling in appearance that of white paint frosted on a pane of glass by means of a piece of absorbent cotton. This appearance is regarded as characteristic by the author. It is due to the fact that on account of the degenerative changes as well as from the hemorrhagic extravasation, larger or smaller cystic cavities develop and the extravasated blood causes areas of pigmentation. Besides this, in some types of the disease, new bone formation takes place in the mass in the shape of small calcified plates surrounded by a softer zone.

The disease starts in the bone or in the periosteum and may even start from the outside layers of the periosteum, involving the soft parts, itself remaining intact between the bone and the growth. Most frequently a new bone is formed beneath the periosteum, so that the tumor is encased in a thin bony shell. Perforat-



DR. GRANGER'S ARTICLE.

ing this and the periosteum the tumor invades the soft parts, its outline becomes lost and its shadow fades away, blending with that of the soft parts.

In upwards of two-thirds of the cases of sarcoma of the long bones, the growth will be found in one end of the bone, the lower end in the femur and the upper end in the tibia and humerus, probably starting in the epiphyses *but very rarely invading the joint*, except in the later stages of the disease. In a few cases, especially those of the femur and tibia, it begins in the middle of the shaft and here it is always of the periosteal type, forming a fusiform enlargement of the shaft in the early stages. Pathological fractures due to this disease are not infrequent.

In one case of sarcoma (Plate No. VI), in which the characteristic frosted-like appearance was not present operation revealed a cavity walled by a thin shell of bone and filled with a homogeneous substance resembling unorganized granulation tissues which could be easily scooped out. The pathologist's report was giant cell sarcoma.

This type of sarcoma, the myelogenous or medullary giant cell, is prone to develop cysts in bone and these cysts are often filled with blood and comprise the so-called bone aneurisms. The absence of cystic cavities and pigmentation, the result of degenerative changes and hemorrhagic extravasation and of calcified plates so generally found in the other types of osteo-sarcoma, account for the absence of the characteristic appearance mentioned above.

Rickets (Plate No. VII): Rickets is recognized by the pale bone shadow, the enlarged medullary canal and the bending of the epiphyses or the shaft or both of the long bone.

The condition usually occurs during the first two years of life, but it may be congenital or may occur as late as the twelfth year. Proper calcification does not take place. At the same time, the dilatation of the medullary cavity goes on irregularly and often to an excessive degree. The cartilaginous and sub-periosteal cells grow with increased rapidity and exuberance and in an irregular manner. As a result the bones do not possess solidity and cannot resist the traction of the muscles or outside pressure. The epiphyses may be displaced or bent, especially in the ribs, less frequently in the long bone. The long bones or the pelvic bones may be bent in a variety of forms.

Cyst (Plate No. VIII): Cyst of bones is rarely found outside of the bones of the head. It is usually the result of a former osteitis. It could not be diagnosed on a radiogram from a small medullary giant cell sarcoma before the latter breaks through the bony wall.

Osteomata (Plate No. IX): New bone growths may start from the periosteum—exostosis—or they may start from the interior of the bone—enostosis. The former may appear anywhere; the latter are seldom found outside of the bones of the head. They would be recognized on the skiagram as irregular, dark masses, attached to the bone.

Osteoid Chondroma (Plate No. X): Osteoid chondroma develop beneath the periosteum most frequently in the femur or tibia near the knee-joint, forming a club-shaped enlargement of the bone, resembling somewhat the immature bone tissue seen beneath the periosteum in developing bone.

Osteomalacia: Osteomalacia consists in a softening of the fully formed hard bone tissue by the removal of its inorganic salts. On the radiogram it would be diagnosed by the pale bone shadow and the bending of the bones. This affection usually occurs in adults, most frequently in females during pregnancy and after parturition.

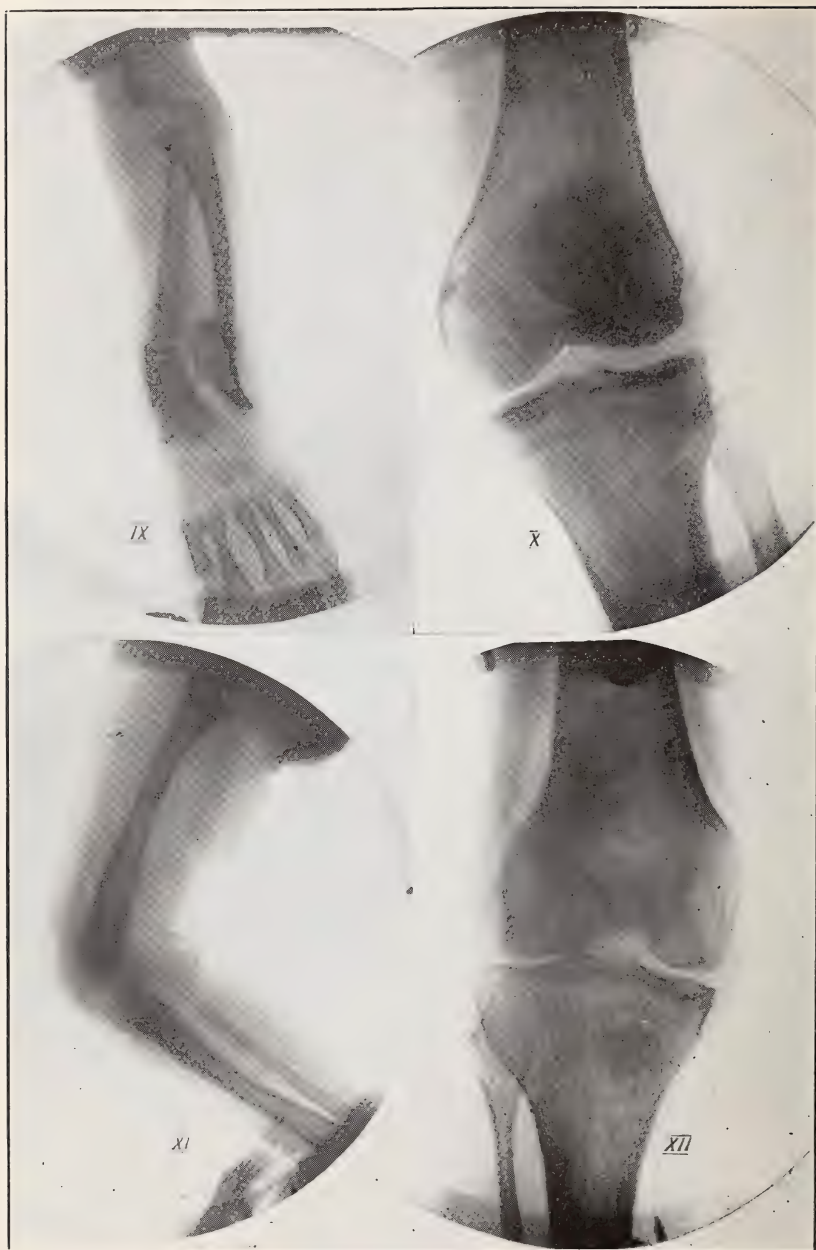
Differential Diagnosis: Of the diseases discussed in this paper the one which is most likely to be confounded with some other disease is osteo-sarcoma; because of that and because of the serious import of such a mistake, I shall devote a few lines to its differential diagnosis.

Osteo-sarcoma must be differentiated from osteo-myelitis, tuberculosis of bone, syphilis of bone, osteomata and metastatic hypernephroma.

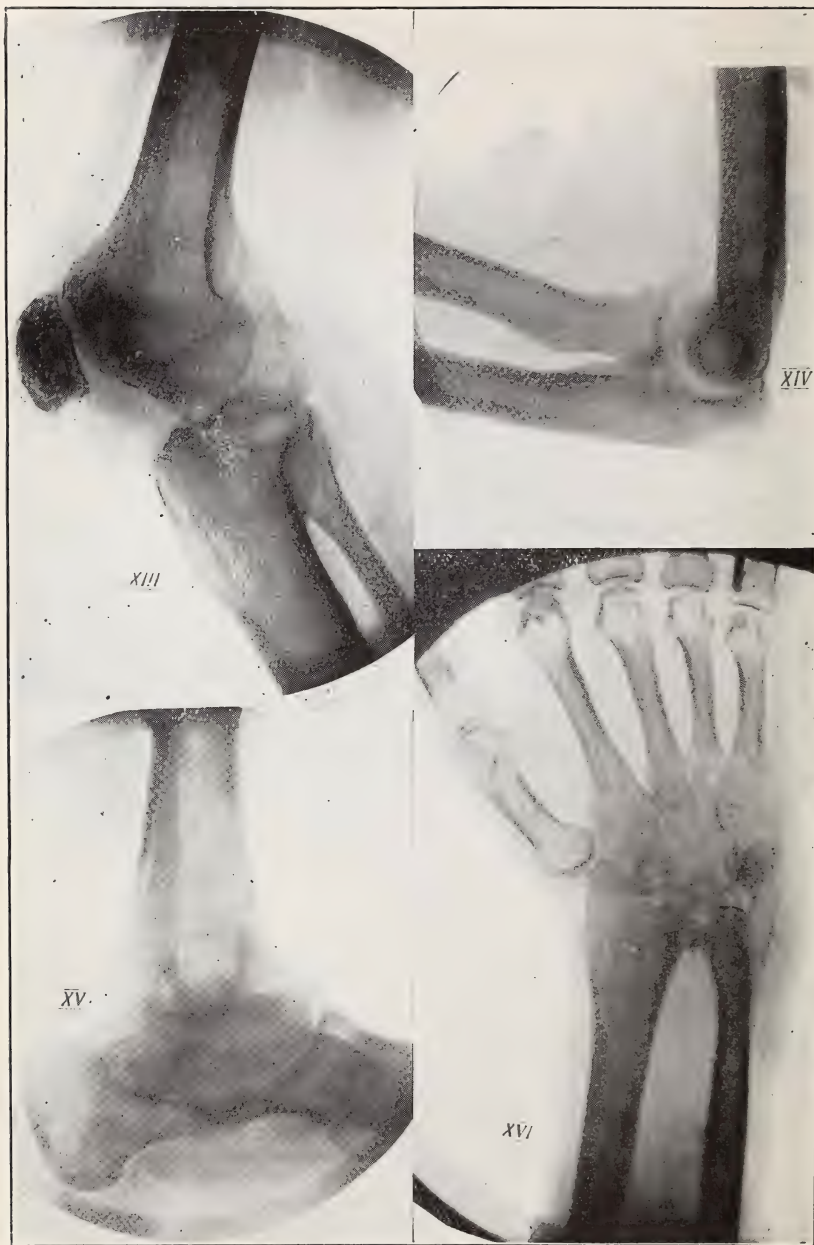
All cases of osteo-sarcoma seen by the writer with the exception of one case of medullary giant cell sarcoma, presented the characteristic frost-like appearance.

Large Osteomata: Either exostosis or enostosis are the only other diseases of the bone presenting shadows which have any resemblance to the characteristic appearance of sarcoma. This shadow, however, is much denser, does not involve the entire bone segment and does not merge into the soft parts.

Osteomyelitis shows in circumscribed cases the light central shadow surrounded by the dark rim of osteosclerosis; in extensive



DR. GRANGER'S Article.



DR. GRANGER'S ARTICLE.





cases, with extension of inflammation to the soft parts, there is a honeycombed appearance of the bone, with or without the presence of sequestra. While in sarcoma the normal bone shadow disappears and is replaced by the characteristic shadow, which fades away into the surrounding soft parts.

Tuberculosis of Bone shows the indefinite pale shadow and the bone atrophy. It nearly always begins at the epiphyses and very frequently spreads to the joint. Sarcoma, quite the contrary, very rarely involves the joint, except in the later stages.

Syphilis of Bones shows darker shadows. The periosteum often presents an irregular raised appearance over a greater area than is seen in sarcoma, and there is no blending or extension to the soft parts as in the latter disease.

Metastatic Hypernephroma: This condition could not be differentiated from the medullary giant cell sarcoma on a skiagram. But a pathological fracture in an elderly man would make one suspect hypernephroma and the examination of the renal regions would clear the diagnosis.

Scurvy (Plate No. XI): Scurvy, although not truly a disease of bones, causes frequently subperiosteal hemorrhages, which are most generally found at the lower extremity of the long bones.

Arthritis: The synovial sac becomes filled with serum, sero-fibronous fluid or pus, depending upon the nature of the infective agency. The skiagram shows the increased interosseous space and the distended joint capsule. The density of the shadow will of course, depend upon the nature of the fluid in the synovial sac.

Mild cases undergo resolution. The more malignant ones cause extensive destruction of cartilage and bone. The majority of cases become chronic. Here we find the following joint changes: At first the synovial membrane is congested and its tufts are prominent. Later there is more or less destruction of the synovia, with the formation of small adhesions (Plate XII) and the tufts become large and projecting (Plate XIII). As the disease advances the cartilaginous surface is discharged and replaced by granulation tissue. Fibrous (Plate XIV) and bony (Plate XV) ankylosis often result.

Arthritis Deformans: This name has been applied to a variety of chronic inflammation of joints which combine with degeneration of parts of the joint and the new formation of bone may result in

marked deformities of the part. The capsules are thickened and sclerosed, the tufts of the synovial membrane are changed into cartilage, new bone growths from the articular cartilages, from the joint capsules, and even from the ligaments (Plate XVI).

As a result of the changes which take place in the basement membrane and in the cartilages, the latter become destroyed from pressure during the movements of the joint and the bone is laid bare. This is shown in the skiagraph by disappearance of the normal articular shadow. (Plate XVII).

The ends of the bones are much deformed. They are flattened and made broader by irregular new growth of bone, while at the same time they atrophy. The new growth of bone starts from the articular cartilage.

Tubercular Arthritis (Plate No. XVIII): This affection usually begins in the synovial membrane of the joint, or it may extend to the joint from adjacent bone. It is characterized by the formation of tubercle tissue and granulation tissue and is usually associated with secondary inflammation and degenerative changes of the surrounding part. This disease is most common in children and young persons, and usually affects one of the larger joints. It is recognized on the radiogram by the paler hue of granulation tissue. As the disease advances and the articular ends of the bones become involved this is plainly seen on the X-Ray negative by the paler shadow and the atrophy of the affected bone. Later the area and extent of the bone destruction, with resulting deformities show distinctly.

Loose Cartilage in the Joint (Plate No. XIX) shows a loose outer semi-lunar cartilage slightly dislocated inwards.

Recurrent Gonorrhea in Married Men.*

By CARROLL W. ALLEN, M. D., New Orleans.

In presenting this subject it is not my intention to bring out anything new in either the pathology or treatment of this condition, but to draw attention to what I consider the most dangerous phase of this disease, which frequently brings more suffering to others than to the patient himself; and to urge the general practitioner to more care and thoroughness in the treatment of

*Read before the Orleans Parish Medical Society, September 12, 1908.

initial cases of gonorrhea coming under their control, and to emphasize the seriousness of all recurrent symptoms occurring in men, married or single, who have previously been infected. It is the prevalent custom among a great many physicians to treat acute cases of this kind, as well as all other urethral discharges, with a small syringe and some sedative internal remedies, generally being satisfied to stop treatment after all evidence of discharge has ceased to appear for a few days, without having recourse to other means to determine whether or not the case is cured.

That a tremendous morbidity is due to gonorrhea cannot be questioned. Statistics show that 75% of all blindness is due to this cause, and, according to various authorities, the gynecologist owes 60% to 80% of his work to this disease, and many one-child sterilities are attributable to the same cause. Much of the above morbidity occurs in married people and among a class who are fairly careful. The husband, infected in his youth and treated indifferently, maybe due to his own fault, finally thinks himself well. He may have one or two outbreaks of the old trouble, which he thinks are fresh attacks. They yield to his first prescription, and in time he marries, conveying to his wife his disease, which has been lurking deep in some gland or follicle of his urinary tract. And she in time reaches the operating table. That the gonococcus is wonderfully tenacious and capable of lying quiescent in the tissues of the genito-urinary tract for a long number of years, is now well recognized. Well authenticated cases, too numerous to longer doubt their correctness, have been reported as harboring this organism for fifteen to twenty years after the primary infection.

The following cases serve to illustrate some of my experiences with married men. I would like to remark here that, like all venereal histories, a negative history of indulgence or possibility of infection away from the marriage bed is not given much credence, unless examination reveals the source of the discharge as coming unmistakably from an old uncured lesion, nor do I mean to include all urethral discharges in married men as being the result of specific infection, either recent or old, for married men very frequently have a simple urethritis.

Mr. G., aged 35, traveling man, married seven years, three children. Wife had one tube and ovary removed after the birth of the last child and has been curetted three times since. He first

consulted me January, 1905, for a slight morning drop and a stain on his undergarments, which had existed for several weeks. Shreds found in first, second and third urine. He admitted gonorrhea eleven years ago. Denies possibility of infection since. Was originally—that is, during his first infection—treated with syringe for about six months. Never had any examination other than urine inspection made during this time. Examination revealed an indurated and slightly contracted condition of posterior portion of penile urethra in the region of the bulb, with a slight left seminal vesiculitis. The secretions were examined once, but no gonococci found. He could never be made to realize his condition, and stopped treatment after several weeks, when he concluded he was well enough. The fact that no gonococci were found is of no value, as in these old cases they are usually only found upon repeated examination, some times not at all, though the case may be clearly gonorrheal.

Mr. C., aged 29, engineer, married six years, one child 5 years old; wife had never been pregnant since, and for several years has had constant pain in lower abdomen, with a vaginal discharge. Patient admits several attacks of gonorrhea prior to marriage, the last ten years ago. Duration about one year. Was treated with hand syringe and internal remedies. No examination had ever been made of his genito-urinary tract. He had first consulted me about his wife, who had acute cystitis and a profuse vaginal discharge. I became suspicious and examined him and found an old chronic prostatitis and obtained the above history. They both underwent treatment at the same time, and before I had been treating them a week, brought their five-year-old child, suffering with a severe ophthalmia of two days' duration and a profuse vaginitis, which had just been recognized. Fortunately, all got well without any serious results, the baby's eyes clearing up in the course of several weeks. The husband is still under treatment, his prostate still showing some evidence of the infection after six months' fairly regular attention. I have not had an opportunity to examine his wife since her vaginal discharge subsided, but from her symptoms feel sure she has some serious pelvic trouble.

Mr. A., merchant, aged 42, consulted me January, 1907. His history is similar to the two cases just recited, except that his wife has had both tubes and ovaries removed. After about one month's treatment for a chronic prostatitis and seminal vesiculitis, during

which time the symptoms had subsided and he wanted to stop treatment, but I urged a continuance. He consulted another physician, who did not find any need for further treatment, without, however, making any examination other than urine inspection. The patient reported to me and stopped treatment, still far from well.

I could cite many more cases, but the above will suffice and are representative types of the cases who come to those doing G. U. work and illustrate a lamentable lack of knowledge of the pathology of this disease, both in its acute and chronic forms and the superficial manner in which these infections are so often treated. It is true the blame often lies with the patient, but the physician, too, is frequently at fault.

Gonorrhea is one of the most serious of diseases that we have to contend with, often far worse than syphilis, and should be treated with far more seriousness and care than is often bestowed upon it, and the sooner this is generally recognized by the profession at large and the laity the better for the patient.

The majority of cases of primary infection result in a posterior urethritis far oftener than is generally supposed. A syringe placed in the hands of the patient, if relied on alone, is entirely inadequate to the needs of these cases, and its careless use is one of the surest means of bringing about complications which favor a recurrence and the spread of the disease to others.

Anterior Poliomyelitis with Report of Cases.*

By DR. L. L. CAZENAVETTE, New Orleans.

Although the principal reason for my appearance before you to-night is to make a brief report on eighteen cases of acute anterior poliomyelitis seen in the out-clinic of the Charity Hospital since November, 1907, I would consider my task incomplete if it were not prefaced by a few general remarks on this important disease which is the cause of a large proportion of our crippled population.

By the term acute anterior poliomyelitis and its synonyms: acute spinal paralysis, acute atrophic paralysis, paralysis of children, and essential paralysis of children, is meant a disease appearing commonly in children, characterized by a fever of rapid

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onset accompanied by more or less gastro-intestinal symptoms and a rapid loss of power in one or more limbs. The paralysis subsides in great part, leaving often some parts to undergo complete paralysis, with atrophy, and permanent disability. As the term indicates, it is the result of a rapidly developing inflammation, more or less extensive, of the gray matter of the spinal cord, affecting its anterior horn.

We have encountered only sporadic cases of this disease, but it is now a past-disputed fact that it can manifest itself in the form of an epidemic. Starr mentions 46 epidemics so far recorded in the literature.

Since the last epidemic, which invaded New York and its vicinity during the summer of 1907, this disease has been the subject of renewed interest. Many investigators have embellished the literature of the past year with numerous articles giving the result of their study of the disease in all its phases.

Although there has been noted a similarity between the sporadic and epidemic forms of this disease, some, as Berg, of New York, maintain that the two conditions are radically different. This difference he observes in the greater extent of the neurological lesions seen in the epidemic form; the clinical manifestations differing as markedly as is necessitated by the widely different pathological changes characteristic of each. They differ also in their morbidity, in the ages of the patients for which each of the conditions has a predisposition; the sporadic disease being found in children almost exclusively, the epidemic disease affecting adults and children; and furthermore, in this important characteristic, the sporadic cannot be considered infectious, whereas the epidemic form may be, although positive proof of its infectious nature is still lacking.

ETIOLOGY.—Before entering into the discussion of its specific cause, it is well to remember that it is a disease which manifests itself mostly in its sporadic and epidemic forms during the summer months. On this point I have combined the figures given by Sinkler and Collins and Romeiser and found that, of 890 cases, 37 occurred in winter, 45 in spring, 502 in summer and 306 in autumn.

Although cases of this disease have been reported in adults, it is by far more frequent in children and infants; hence, the name

of essential paralysis of children. Of the 500 cases reported by Collins and Romeiser, 95 % occurred in patients under five years, 70% were between one and three years, and 33% during the second year. The most vulnerable age is, therefore, from one to three years.

At that age infants and children are prone to become the subject of broncho-pulmonary gastro-intestinal diseases, and as it is also the time of teething it is not astonishing that to these conditions the cause of acute poliomyelitis has been attributed. But it is now believed to be due to a toxemia with the gastro-intestinal canal as the probable port of entry.

After an exhaustive investigation on this subject, Harblitz and Scheel, of Norway, conclude thus:

"It is our opinion that poliomyelitis is due to a specific virus, and, further, that we are not dealing with the remote effect on the central nervous system, but that the organism is present in the nervous system itself, in the meninges in the cerebro-spinal fluid, and probably in the nervous substance, and that it is the direct cause of the extensive inflammation. Many facts favor the assumption that the atrium of the infection is in the digestive tract, and that the nervous system becomes infected either by the lymph stream, along the vessels and nerve trunks (though no anatomic proof of this exists), or, what appears more likely to us, by way of the blood, which also appears to be probably the case in cerebro-spinal meningitis."

The bacteriology of the disease has also been studied, but nothing definite has been found. Starr's conclusion on this subject is that "while the clinical history of the disease implies an infection, it must be admitted that up to the present time the organism responsible for the disease has not yet been discovered, and that it is still a matter of uncertainty whether the causative agent is a micrococcus or is a toxin. The weight of evidence is, however, in favor of the latter hypothesis."

PATHOLOGY.—As regards the morbid anatomy in this disease, we find that Harblitz and Scheel, previously referred to, have held autopsies and made careful investigation of seventeen cases who died of this disease. "The changes found were in the nervous system only. They describe a diffuse, infiltrating, inflammatory process closely related to the blood vessels and chiefly in the gray

matter, and within this chiefly in the anterior horns. Generally the inflammation extended along the whole length of the cord, and as a rule was most intense in the cervical and lumbar enlargements. The inflammation often had a hemorrhagic character, even to the extent that small hemorrhagic cavities were formed, especially in the anterior gray horn.”

In non-fatal cases at the end of some time a focus or several foci of myelitis are found in the anterior gray. The nerve cells of the affected region are found to be in all stages of degeneration. The motor nerve fibres of the diseased anterior horn cells then secondarily degenerate, and the nerve fibres disappear peripherally from the anterior roots to the paralyzed muscles.

REPORT OF EIGHTEEN CASES.

In referring to the eighteen cases now to be reported I wish to say that all of them came to the clinic after the onset of paralysis, and most of them after the acute stage of the disease. In gathering information according to a modified scheme offered by Collins and Romeiser, I have had to depend in a large measure on the answers given by mothers and close relatives. In order to avoid as many errors as possible, frequent and separated questioning at subsequent visits to the clinic were made.

The diagnosis of these cases was a comparatively easy matter. All of them came to the clinic after the onset of paralysis, which, in most of the cases, presented the typical classical type.

With a history of some fever, probably some gastro-intestinal disturbance, a rapid loss of power in one or more limbs, a flaccid paralysis often marked atrophy, muscles offering no resistance to the touch, diminished temperature of the paralyzed limb, with at times a cyanosed appearance, abolished reflex movements, without impairment of sensation, and bladder and rectal functions, we have a complete picture of the disease, and if we add to this the loss of Faradic contractility in the affected muscles and a change in the normal reaction to the galvanic current, we have a condition resembling nothing else.

CHART I.

CASE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL CASES 18
Age at onset	July '08	May 4, '08	April 28, '08	April 14, '08	May 22, '08	June 25, '08	June 23, '08	April 24, '08	April 24, '08	July 7, '08	July 21, '08	Aug. 6, '08	July 10, '08	July 21, '08	Aug. 4, '08	Dec. 17, '07	July 14, '08	Aug. 18, '08	
Age at death	1 yr. 6 mos.	1 yr. 5 mos.	2 yrs. 11 mos.	1 yr. 9 mos.	1 yr. 8 mos.	9 mos.	10 mos.	1 yr. 7 mos.	1 yr. 10 mos.	1 yr. 7 mos.	9 mos.	1 yr. 10 mos.	7 mos.	8 mos.	1 yr. 1 mo.	1 yr. 5 mos.	8 mos.	1 yr.	= Up to 1 yr. 7. Between 1-2 yrs. 10. 2-3 years. 1.
Sex	M.	F.	M.	F.	F.	M.	M.	M.	M.	M.	M.	M.	M.	M.	F.	M.	F.	F.	= Males 12. Females 6.
Month of onset	May '08	April '08	April '08	April '08	April '08	May '08	June '08	March '08	April '08	Oct '07	May '08	July '08	May '08	June '08	March '08	Nov '07	May '08	May '08	= Oct. 1. Nov. 1. Mch. 2. Apl. 5. May 6. June 2. July 1.
Month of death	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 8.
Duration of illness	2 days	2 days	½ night	1 night	3 days	3 days	3 days	4 days	1 night	1 night	8 days	3 days	2 days	2 days	1 day	1 day	3 days	8 days	= 10. Less than 1 day, 6. Less than 2 days 4. Less than 3 days, 5. More than 3 days, 3.
GASTRO-ENTERIC SYMPTOMS																			
Abdominal pain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 6
Diarrhea	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 7
Constipation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 8
Stool	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 8
Stool	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 2
Stool	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 1
Stool	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 4

CHART II.—PSYCHOMOTOR (MENINGEAL) SYMPTOMS.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Stiffness of neck	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	Yes (at first)	= 6
Stiffness of neck	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 5
Stiffness of neck	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 7
Stiffness of neck	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 10
Stiffness of neck	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 8
Stiffness of neck	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 1
Stiffness of neck	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 2
Stiffness of neck	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 7
Stiffness of neck	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	= 11

CHART III.—PARALYSIS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Paralysis	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	Yes	Yes	Yes	Yes	Yes	Left	Yes	Yes	Yes	Rgt	Yes	= 3
Paralysis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	= 14
Paralysis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	= 2
Paralysis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	= 6
Paralysis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	= 1
Paralysis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	= 5
Paralysis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	= 1
Paralysis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	= 6
Paralysis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	= 4
Paralysis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Rgt	Yes	= 1

Only one extremity affected in 2 cases (6—13)
 Both arms affected in 1 case (7)
 Both legs affected in 8 cases (1—5—8—9—11—12—15—18)
 One arm and one leg affected in 1 case (17)
 Both arms and both legs affected in 3 cases (2—3—4—10—14)
 One arm and both legs affected in 1 case (16)
 Other paralyses affected in 6 cases. Neck 4 cases. Abdomen, 1—(4)

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CHART IV.

		Case No.	PRESENT CONDITION	ELECTRIC REACTION					RESULT
				Normal make	—	+	or make	ccc	
P	L	2	6 Recovered completely					ccc	Recovered
			13 Marked improvement					ccc	Improved markedly
P	L	1	7 Left recovered					ccc	Recovered
			7 Right lost to recover					ccc	Recovered
P	L	1	7 Right recovered completely					ccc	
			1 Left lost to recover					ccc	
P	L	1	7 Left recovered					ccc	
			5 Right still paralyzed some					ccc	Improved some
P	L	1	8 Left recovered					ccc	Recovered
			8 Right very little paralyzed					ccc	Improved
P	L	8	9 Right recovered					ccc	Recovered
			9 Left leg and thigh completely paralyzed					ccc	Stationary
P	L	8	11 Left worse					ccc	
			11 Right still paralyzed and atrophied (Right less)					ccc	Improved some
P	L	8	12 Right recovered					ccc	Recovered
			12 Left still paralyzed					ccc	Improved some
P	L	8	18 Right recovered					ccc	Recovered
			18 Left still paralyzed					ccc	Improved some
P	L	8	18 Left recovered					ccc	Recovered
			18 Right still paralyzed					ccc	Improved some
P	L	1	17 Complete paralysis with atrophy 1 Arm 1 Leg	No Reaction with strong current					Stationary
			2 Right leg recovered	make				ccc	Recovered
P	L	2	2 Left leg recovered					ccc	Recovered
			2 Right arm recovered	+				ccc	Recovered
P	L	2	2 Left arm recovered	+				ccc	Improved
			3 Right arm	+				ccc	Recovered
P	L	2	3 Left arm	+				ccc	Recovered
			3 Right leg	+				ccc	Improved some
P	L	2	3 Left leg	+				ccc	Recovered
			4 Right arm	+				ccc	Recovered
P	L	5	4 Left arm	+				ccc	Recovered
			4 Right leg	+				ccc	Recovered
P	L	5	4 Left leg	No reaction with strong current					Stationary
			9 Right arm	make				ccc	Recovered
P	L	5	9 Left arm					ccc	Recovered
			9 Left leg	+				ccc	Improved
P	L	5	10 Right leg paralyzed	No reaction with strong current					Stationary
			11 Right arm	+	make			ccc	Improved
P	L	5	11 Left arm					ccc	Improved some
			11 Left leg	+				ccc	Improved
P	L	5	11 Right leg paralyzed	+				ccc	Stationary
			16 Right arm					ccc	Recovery
P	L	1	16 Right leg	No reaction with strong current					Stationary
			16 Left leg						

In order to facilitate the reporting of these cases, I have arranged the whole group in several charts [IV], each of these permitting at a glance rapid deductions.

Thus, we find that in Chart I, referring to the "month of onset of these cases," one case occurred in October, one in November, two in March, five in April, six in May, two in June and one in July. Thus, we see that even in this limited number, eleven cases occurred in warm weather months.

As regards the age at time of onset, it varied from eight months to two years and eleven months.

Up to one year there were seven cases. Between one and two years, ten cases, and between two and three years, one case. This shows again the most critical ages to be distinctly before the third year.

As regards sex, there were twelve males and six females, giving a ratio of two to one. This is a higher ratio for males as compared to the figures given by Collins and Romeiser. Of 500 cases reported by them, there were 297 males and 203 females, giving a ratio of three to two.

As regards the febrile reaction at the time of onset, I am unable to give the exact degree of fever in any case, for, as stated above, these cases came after the febrile stage. But the histories, as best they could be gotten, show that all cases had some fever; eight cases having had slight fever and ten cases high fever. The duration of the fever varied from twelve hours to eight days, thus:

Less than one day, 6; less than two days, 4; less than three days, 5; more than three days, 3.

This compares favorably with figures given by other observers.

As regards symptoms referable to the gastro-intestinal canal and bladder, we see that vomiting occurred in 6 cases; anorexia occurred in 7 cases, diarrhea occurred in 8 cases; constipation occurred in 8 cases; retention occurred in 2 cases (doubtful); incontinence of urine and feces occurred in 2 cases (doubtful); diarrhea, followed by constipation, occurred in 1 case; diarrhea previous to illness, occurred in 4 cases.

Thus, we see that out of eighteen cases, an equal number suffered from diarrhea and constipation. The discrepancy in the figures is due to the fact that the same patient may have suffered from more than one of these symptoms referred to.

As regards the psycho-motor (Meningeal) symptoms, Chart II, we find that somnolence occurred in 6 cases, stupor occurred in 5 cases, unconsciousness occurred in 1 case, rigidity and retraction occurred in 7 cases, insomnia and restlessness occurred in 10 cases, twitching occurred in 8 cases, convulsions occurred in 1 case, delirium occurred in 2 cases, screaming occurred in 7 cases, crying occurred in 11 cases.

Thus, we see that those symptoms indicating a marked irritation of the nervous system as twitchings, restlessness, insomnia, rigidity and retraction appeared in a large number of cases. One case (16) had opisthotonus three days after the onset of fever.

As regards the extent of the initial paralysis in these cases, we see that at the onset (Chart III) only one extremity was affected in 2 cases (6-13), only both arms were affected in 1 case (7), only both legs were affected in 8 cases (1, 5, 8, 9, 11, 12, 15, 18), only one arm and one leg were affected in 1 case (17), only both arms and both legs were affected in 5 cases (2, 3, 4, 10, 14), only one arm and both legs were affected in 1 case (16).

Other parts paralyzed were: Back in 6 cases, neck in 4 cases, abdomen in 1 case.

There was a total of 45 extremities affected from the onset.

Recovery took place in 23, improvement marked in 6, less improvement in 7, no improvement (stationary) in 9.

Of these 45 extremities affected at the onset, there are to-day 28 with normal electrical reaction, 11 with partial R. Deg., 6 with complete R. Deg.

Here I wish to call your attention to the fact that in the nine extremities showing no improvement must be included the six extremities presenting complete R. Deg., and of the remaining three we still have some hope of some improvement, because they still present only a partial R. D.

TREATMENT.—In referring to the treatment followed in these cases I shall, in due justice to the report itself, limit my remarks to what was done for these babies and children in the clinic. Were I to say anything about the treatment of these cases during the acute stage it would be trespassing upon grounds over which I had absolutely no jurisdiction. In order to prevent as much as possible subsequent deformity, instructions were given to the parents or guardians to keep the limb as much as possible in a

normal position, as, for instance, by the use of sandbags placed along the limbs, while the child reclined. Where the exterior group of the foot and toes were affected they were cautioned not to allow bedcovering to come in contact with the foot, thereby preventing an undue strain on the paralyzed muscles.

Internal medication consisted in the administration of strychnin sulphate in doses appropriate to the child's age for a long time, with an occasional week or so of rest.

On the judicious use of the galvanic current depended most of our hopes. It was used on the paralyzed limbs and muscles and nerves in (milliamperage) dosage sufficient to cause muscular contraction. Where it was found that the $A C C > C C C$, but the closing contraction at either poles was greater than the opening, better hopes were entertained and further encouragement given to parents.

In other cases where there was but a diminution in the character of contraction, but without any qualitative changes, the power in the lower limbs improved gradually until fully restored. In this agent alone we have the means of keeping in better condition the paralyzed muscles until such time as nature shall have completed her work of healing in the anterior gray horn cells.

My experience during ten years of service in the out-clinic of the hospital has only strengthened my belief in the great benefit to be derived from the use of this agent in the treatment of paralysis in these cases. It should be used during the whole of the first year. Of course, in cases where the atrophy of the muscles is very marked and complete R. D. is present no amount of electricity will restore the lost functions but in other cases we should use it with patience, and the improvement which follows crowns our efforts often with success.

I have purposely avoided mentioning the use of orthopedic appliances, because none were used in the cases reported.

In closing, I wish to say that the forms of paralysis met were the usual ones as mentioned in text books. Five cases are now severely affected with dropfoot. One case presented abdominal paralysis and hernia two weeks after onset of disease. It was well marked for three weeks, but is now subsiding.

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Some Views on the Prophylaxis of Gonorrhea.*

By FRANK J. CHALARON, M. D., New Orleans.

This paper is not written with the object of throwing new light on an old theme, but rather to accentuate the importance of concerted action toward diminishing the prevalence of venereal diseases, and more particularly, gonorrhea. This disease has correctly been called the most venereal of venereal diseases, because it is the one most frequently contracted during sexual cohabitation, and also because its extra-venereal occurrence is proportionately very small. Of its origin we know nothing, but some authors have used Biblical authority to prove its antiquity, quoting Leviticus, Chapter XV. However old it may be, it is now almost universal in its habitat, and while more common in large cities, where licentiousness and debauch abound, it exists to a considerable extent in the most rural districts. Neisser says: "It is one of the most prevalent diseases to which mankind is subject, and it is certainly not in point of frequency surpassed by any other disease." The same author, by means of questions addressed to the medical profession of Breslau, found that almost 9 per cent. of the population of that town was infected with gonorrhea. This figure would probably be greatly exceeded if a careful and correct census of large centres and seaport towns could be gathered. The able and successful general educational campaign being conducted against tuberculosis has given enough tangible results to encourage the Germans in proclaiming the rather Utopian decree, "After 1930, no more tuberculosis." If such results can be obtained against so formidable a foe as the bacillus of tuberculosis, why not believe that a similar victory can be won over the less resistant gonococcus?

*Read before the Orleans Parish Medical Society, September 26, 1908.

The *Société Française de Prophylactique Sanitaire et Morale*, in a bulletin published by Jullien in 1903, outlined a circular of advice to prospective husbands and wives, calling attention to the danger of sexual disease.

Could not uniform instruction in this line be given, extending the course into the prophylaxis of venereal disease? It is our duty, as guardians of the public health, to educate, if not the general public, at least that part of it which comes under our personal care, as to the best means of avoiding disease. In no branch of hygiene is it more important that correct medical knowledge be disseminated than in that relating to sexual matters. Admittedly, the subject requires tact and nicety of judgment to be properly handled. Furbringer says: "There is always a certain amount of offensiveness in the treatment of subjects pertaining to the sexual function; but it is the duty of the medical man to answer conscientiously and to the best of his ability all questions relating to health."

The etiological facts connected with gonorrhea and its constant association with vice, make it repugnant as a subject of conversation, and restrict the beginning of our educational campaign to the physicians' consulting room.

While believing firmly that with higher, better, more rational physical, moral and religious education, we will some day reach that ideal plane of civilization where our common vices will cease to exist, yet having to deal with an actuality and realizing that "illicit sexual intercourse is practiced far beyond any physiological demand," we should endeavor to diminish the custom and to reduce its dangers by proper medical advice.

Let us, then, teach: First, the hygienic value of chastity. Next, to regard any illicit sexual intercourse not as a possible, but as a probable, source of infection. Instruct those under our care how to minimize the probability of this infection by adequate sanitary precautions. These are quite efficacious against gonorrhea, if properly applied in time.

We know from the experiments conducted on condemned criminals by Finger, Gohn and others, that it requires from 24 to 38 hours for the gonococcus to penetrate the urethral epithelium, and that the squamous epithelium of the fossa navicularis is still more resistant to their entrance. We also know that when access-

ible—that is, before it has penetrated the cells—the gonococcus is easily killed by most germicides; that it loses its power of propagation at a temperature of 104 degrees and succumbs before reaching 140 degrees Fahrenheit.

Keeping these facts in mind, we are ready to advise correct prophylactic measures. Theoretically, the use of a condom is the best protective measure to be advocated, but since many men have a marked dislike for the device, considering it in the same light as the witty demi-mondaine, who called it “an armor against pleasure and a cobweb against disease,” we must perforce seek other means of protection. For this purpose, the prophylactic injection of the phallic urethra is the best. This injection should be used as soon as possible after coition, due care being exercised not to traumatize the delicate urethral mucous membrane, either by the use of rough instruments or by escharotic solutions. For the past four years I have recommended as a prophylactic, with uniform and gratifying success, the injection into the urethra, by means of a smooth-edge medicine dropper, of a 1 to 2,000 solution of potassium permanganate. This solution, preferably warm, to be used not later than twelve hours after intercourse, ten or more medicine droppersfull being consecutively injected without constricting the meatus. Preference is given to potassium permanganate because it is a reliable gonocide, cheap and easily obtained in tablet form, is less disfiguring and destructive to clothing than most other germicides. Protargol, argyrol, nargol, argonin, argentamen, silver nitrate, mercuric chloride, and other germicidal agents, may be used with equal efficacy, providing the solution be sufficiently diluted to avoid irritation.

Another point which I believe will be corroborated by those of you who handle many venereal patients is that here in New Orleans I have found that only 35% of all gonorrheics applying for treatment have acquired the disease in a regular house of prostitution. The street-walker and the amateur prostitute plying their trade clandestinely, and in assignation houses under unfavorable hygienic conditions, are responsible for the bulk of the other 65%. It is especially against this latter class that the young men should be warned and taught to use the most rigorous preventive measures. Their lack of genital cleanliness, as much

due to inexperience as to inadequate sanitary facilities, makes them more subject to venereal disease, and consequently prolific disseminators of gonorrhea.

Before concluding, I wish to deprecate the custom which obtains with some practitioners who make light of a gonorrhea, and who either through ignorance, repugnance or carelessness, dismiss the patient with the assurance that "it's only a clap, and you'll be all right in three or four weeks." These words, backed by the weight of professional authority, not only tend to bring disrepute to the profession at large, but create contempt for a serious disease. This contempt cannot be better exemplified than by the popular saying that a clap is no worse than a cold in the head. Another criticism I have to offer is directed toward the physician who, after the visual or digital examination of the female genitalia, pronounces the patient free from gonorrhea, and is even willing to give a certificate to that effect. Anyone who has had any experience knows how difficult it is, even after repeated microscopical examinations, to declare a woman free from gonorrheal infection. This difficulty has been one of the principal causes of the failure of medical control of prostitutes practiced in many European capitals. If further substantiation be needed, the uniform adoption of the Credé protective instillation of the eye in new-born children is conclusive evidence that the obstetrician recognizes the probability of the presence of infection in most women.

Finally, it may be urged against the views expressed in this paper that, in diminishing the deterrent element of danger, we remove a barrier to vice and give a renewed incentive to depravity and licentiousness. While this may be true in individual cases of libertines and roués, it will not apply to the masses, for at no time has proper education in hygienic matters proven other than a public boon.

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PROCEEDINGS OF ALEXANDRIA MEETING, 1908.

DR. R. H. BLACKMAN, of Monroe, read a paper entitled

The Etiology of Acute Nephritis in Children.

The subject of acute nephritis in children was selected for a symposium by the chairman of this section for three reasons:

1st, because of its frequency; 2d, because it is so often overlooked by the general practitioner; 3d, because of the importance of its early detection.

Etiologically, acute nephritis in children may be divided into that occurring in infancy and that of older children.

CLASSIFICATION.—I. ACUTE NEPHRITIS OF INFANCY:—

1st, of gastro-intestinal origin; 2d, due to other infections and intoxications; 3d, due to congenital syphilis.

II. ACUTE NEPHRITIS OF OLDER CHILDREN.

1st, due to scarlet fever and diphtheria; 2d, due to other infections and intoxications; 3d, cold, exposure and certain drugs.

1. *Gastro-Intestinal Disorders*.—Kjelberg, in 1870, after examining 143 cases of intestinal catarrh, found albumin and casts and round cells in 47%. His statements have since been verified by many men who have studied and written on the subject until now it is known that in gastro-intestinal disturbances, even a simple dyspepsia, albumin may be found in the urine, which of itself does not mean a pathological change in the renal structure, but a tendency in that direction.

Of the gastro-intestinal diseases, intestinal catarrh and enteritis seem to be the principal causes of renal diseases. Epstein considers albumin in the urine as the most important symptom of cholera infantum, often beginning from 12 to 24 hours after the beginning of the diarrhea and increasing with the diminution of the urine, which is characteristic of that disease, and attaining its highest amount at the acme of the disease.

2. *Nephritis Due to Other Infections and Intoxicants.*—The number of cases of nephritis in infancy due to the causes just mentioned are not so great as those due to intestinal disorders, for the reason that children of this age are comparatively immune to scarlet fever; it is more often seen in connection with other exanthemata, such as varicella and complicating pneumonia. It is also seen resulting from meningitis, erysipelas, pyæmia, tetanus-neonatorum, impetigo contagiosa, aphthous stomatitis, tonsillitis, scurvy and general eczema.

3. *Nephritis Due to Congenital Syphilis.*—For a number of years it has been known that syphilis in the adult will lead to the development of the large white kidney with edema and abundant urine and albumin, but only during the last decade has there been much light thrown on the subject in connection with hereditary syphilis in infancy.

Cassell examined thirty-one cases between two weeks and seven months, and found albumin and casts in six. Becker, in twelve cases, found the urine free from albumin in only two; in all the others he found from urinalysis evidence of distinct alterations in the kidney, and in six there was evidence of marked parenchymatous nephritis, with abundant albumin and casts, while in four there were only traces of albumin.

II. ACUTE NEPHRITIS OF OLDER CHILDREN.

The nephritis accompanying and due to scarlet fever may be divided into:

1. *The Initial Catarrhal Nephritis*, occurring coincidentally with or immediately following the eruption.

2. *The Post Scarlatinal-Parenchymatous Nephritis.*

The initial catarrhal nephritis is that form which usually occurs coincidentally with the exanthem, and is very frequently found accompanying other high febrile conditions—hence, a term often used to designate it “febrile albuminuria.” It is essentially an acute degenerative inflammation of the renal substance—a cloudy swelling of the tubular epithelium—while the glomerula tufts are normal, the urine contains albumin in small quantities hyalin and epithelium casts and the condition usually, but not always, disappears with the subsidence of the high temperature and before desquamation.

2. *The Post Scarlatina Nephritis*, or *Nephritis Scarlatinosa*, is the most important and typical, as well as the most fatal lesion, due to scarlatina. It is relatively frequent, Hueber having found it in 20% of his cases, while Ralfe says that two-thirds of all cases of nephritis occurring under sixteen are due to this exanthem, and Henoch that with few exceptions acute diffuse nephritis in infancy arises from this affection. Pfaundler says the underlying causes seem to be different from that which produces the exanthem and the acute reaction. Neither poison has yet been isolated, and we know only one factor in the whole process which predisposes to this dreaded complication, and that is the epidemic tendency—a factor which has been recognized by Wagner.

It has been seen in less than 5% of cases during some epidemics, while in others it is present in more than 70%.

The disease seems to have no special predilection for severe cases, as it has been observed to occur with as great frequency following abortive cases, with slight constitutional disturbances, where the exanthem was almost overlooked, as with the severest. The trouble usually makes its appearance at a time when the rest of the disease is over, at the end of the third week, during desquamation; hence, it must be considered in the widest sense of the term a late effect of infection.

The weight of evidence seems to be that the occurrence of nephritis during the course of scarlet fever is due to the circulation in the blood of the specific virus, or toxin, which, eliminated by the kidneys, acts as a direct inflammatory irritant in greater or less degree in each individual, and that the effect of the irritant depends not only upon the virulence (toxicity), but upon the length of time it acts on a given local site; hence, the later appearance of the complication may be explained not only by the fact that it occurs with greatest frequency at the time of desquamation, when the skin, the great adjuvant to the kidney in elimination, is practically or largely out of commission, and when additional effort must be made by the kidney, but also to the fact that it is due to the continued irritating toxins being eliminated, which finally breaks down the natural resisting powers of the organ.

The nephritis which comes on as the result of diphtheria is like that of scarlet fever, in that it is due to the toxins being

eliminated by the kidneys, and only in exceptional cases to the action of the bacteria themselves.

Nephritis very often complicates measles, usually occurring early in the disease, but sometimes as a sequence.

In varicella it comes on in the second or third week after the eruption of the papules.

Smallpox, typhoid fever, whooping cough, malaria, septicemia, influenza, are all liable, more or less, to lead to nephritis, albumin occurring in the urine as early as the second day in typhoid fever. General eczema is the cause in many instances of acute nephritis in children, and tonsilitis is a cause that should not be overlooked, as it is an ever-present condition, and the nephritis which follows it is very insidious in its onset.

DUE TO DRUGS.—In both infants and older children we are more liable to have nephritis as a result of the internal or external exhibition of such toxic substances as iodin, cantharides, tar, styrax, balsam Peru, carbolic acid, turpentine, creosote, salicylic acid and mercury, and they should only be used when the condition of the urine can be watched and the albumin and casts detected.

UNKNOWN CAUSES, COLDS, EXPOSURE, ETC.—That there are some well-marked cases of acute primary nephritis in children there can be but little doubt, but the exact part played in producing same by colds and exposure is still a mooted question, some authors laying quite a deal of stress on them as causative agents, while others are equally as positive that they are only predisposing causes, by producing changes in the circulation and lowering the vitality of the part. We entertain the belief that if a more extended research is made into the subject the cases due to unknown causes, to cold, exposure and so on, will be less and less.

RECAPITULATION.

1. Acute nephritis during infancy is very frequent in gastrointestinal diseases, especially in cholera-infantum, undigested food products becoming toxic substances in the alimentary canal, and when eliminated by the kidneys produce nephritis; hence, frequent examinations of the urine should be made during its course.

2. In syphilis the urine should be examined closely at frequent intervals, as nephritis is produced not alone by the disease

itself, but the treatment, mercury, after exhausting itself on the virus, spirochetæ of syphilis, being eliminated by the kidneys, exerts its deleterious effect on that organ.

Acute nephritis in older children is exceedingly frequent, following scarlet fever and diphtheria, and is due to the toxins circulated in the blood, and depends not so much on the virulence of the poison as the length of time it acts upon the kidney structure, and it being a late effect of the infection, during and after desquamation, the urine should especially be watched at this time for evidences of departure from normal, and the little patient kept on a strict milk diet.

Holt and others claim that a too early resumption of solid food in not a few cases is the indirect cause of nephritis in this disease.

In both infancy and older children the free use of such toxic drugs as iodin, cantharides, balsam Peru, carbolic acid, tar, creosote, turpentine, salicylic acid and mercury should not be practiced, and when used at all the urine should be carefully watched and frequent chemical and microscopical examination made.

DR. J. D. WEIS, of New Orleans, read a paper entitled:

The Pathology of Nephritis, with Special Reference to the Urinary Findings.

To avoid confusion with the nomenclature of clinical nephritis, it may be well to state first what forms are meant by the terms used.

Acute nephritis needs little or no definition; however, under this head must be classed glomerular nephritis as by far the most common form, synonyms of which are acute exudative and productive nephritis. In all cases of acute nephritis, changes are found predominating in the epithelium; changes, however, are also always to be seen in the vascular and inter-tubular (interstitial) tissues as well. Variations in the *amount* of change in a special tissue have given rise to the different names, as acute glomerular, acute interstitial, and acute tubular or parenchymatous nephritis.

The sub-chronic nephritis of Van Norden is the so-called

chronic parenchymatous nephritis of text books. This form of nephritis with predominance of interstitial or inter-tubular tissue the tubules of the kidney, is almost always associated with general edema. Synonyms of chronic parenchymatous are chronic desquamative, chronic tubal, chronic diffuse, and possibly sub-acute nephritis.

Lastly, I shall take up chronic interstitial nephritis, a form of nephritis with predominance of interstitial or inter-tubular tissue changes, synonyms of which are contracted kidney, granular kidney, cirrhosis of the kidney, gouty kidney and renal sclerosis.

To begin with, ACUTE NEPHRITIS. The kidney of acute nephritis is always associated with a diminished amount of urine, varying down to a complete anuria. Such a urine will always contain albumin, blood in varying quantities and tube casts.

Its pathology may vary with the intensity of the disease. Microscopically, the kidney may show no change, or may be swollen and very red, i. e., full of blood. The capsule strips easily without adhesions, the kidneys being large and somewhat friable and dark red, pale or mottled. On section, the cortex is wider than normal, i. e., swollen, and is turbid and grayish red. In some instances the glomeruli stand out as minute glistening red or gray points. Histologic examination will show in the glomerulus an increase in the nuclei of the capillary tufts and a proliferation of the epithelium lining, Bowman's capsule even to the extent of almost completely filling the cavity. The proliferation is usually crescentic in form. The cavity of Bowman's capsule may contain leucocytes and red blood cells. Later hyalin degeneration of the capillary tuft occurs, when the numerous nuclei disappear and a homogeneous staining of the tuft is seen. The tubules show cloudy swelling and hyalin and fatty degeneration of the lining epithelium. It is the accumulation of cells, leucocytes and blood corpuscles in the convoluted tubules that cause the enlargement and swelling of the organ.

The tube casts found in the urine, not only in acute, but in all nephritis, are supposed by some authorities to be primarily hyalin, excepting only waxy casts, and become finely or coarsely granular, epithelial, blood, or fatty casts only when finely granular or coarsely granular or fatty material, and epithelium and blood adhere to them. Again, good opinions aver that casts are.

granular, bloody and fatty, etc., throughout. Be that as it may, the origin of these casts is obvious from the pathological condition of the tubules, as above stated.

Intertubular tissue changes occur, serum mixed with leucocytes and red blood cells in the mild form, and in the severe forms small round cell infiltration throughout the kidney.

In acute nephritis, as described, albumin is always present in the urine, and its percentage or total amount is, in this instance, an indication of the severity of the disease, as will not prove to be true when we come to look at the chronic forms of nephritis. It is a physiological fact that the fluids of the urine are largely secreted by the glomerulus, while the solids are elaborated in the tubules of the kidney. So, from the pathological picture, viz., the glomerular degeneration and destruction, it is evident that the fluid must be diminished in an acute nephritis. Hence, we have a scanty, highly colored, red or smoky urine of high specific gravity with large amounts of albumin and numerous tube casts in the sediment. These casts are usually granular, epithelial or blood, with more or less fat globules adherent. It may be said that acute nephritis is the only true *nephritis*—i. e., an *inflammation* of the kidney, all other forms being nephropathies, i. e., degenerations.

CHRONIC PARENCHYMATOUS (SUB-CHRONIC) NEPHRITIS.—Many cases are the result of an acute nephritis, but many are insidious and truly sub-acute or sub-chronic from onset. The large white kidney is by far the most common finding in this form of disease. The kidney is much enlarged and the capsule is thin and strips without adhesions, and the organ is pale gray. On section, the cortex is widened and yellowish white. The pyramids may be very red. The microscopic examination shows granular and fatty degeneration of the epithelium of the tubules of the cortex, which are distended with degenerated cells and with tube casts. Hyalin changes, of course, are seen in the epithelium cells. The glomeruli are large and Bowman's capsule is thickened, the capillary tufts are in a stage of hyalin degeneration. The interstitial tissue is everywhere increased.

The small white kidney another variety of this disease is caused by the gradual increase of this interstitial tissue and subsequent shrinkage. Another term for the small white kidney is

the pale granular kidney. It is possible that the small white granular kidney may be preceded by the large white kidney; that the condition arises independently as such is also possible.

Good opinions differ on this point. The capsule is thick and strips with difficulty, leaving scars from adhesions, or tearing away part of the kidney. On section, the density of the organ is increased and the cortex is narrowed and shows numerous opaque white and yellowish foci, consisting of accumulations of fatty epithelium in the convoluted tubules. The interstitial tissue is much increased and the glomeruli entirely destroyed, while the degeneration in the tubules is widespread, as in the white kidney. The large and small arteries show thickening of their walls.

A hemorrhagic form is much the same picture as the large white kidney with brownish areas in the cortex, due to hemorrhage into and about the tubules.

The urine of this type of kidney varies with the form. The large white kidney has a scanty urine with a high specific gravity (here again, obviously from the destruction of the capillary tufts of the glomerulus), with constant albumin and casts always more or less fatty. It is the last stages of this disease which give the highest albumins, and possibly the so-called waxy casts. Such patients are water-logged, i. e., in a condition of general anasarca.

The contracted white kidney gives a larger amount of urine of lower specific gravity, with variable quantities of albumin. Albumin, indeed, may possibly be absent at times, but a microscopical examination of the sediment will always show granular and fatty casts. This last point is of extreme importance, both in this form of diffuse nephritis as well as in the next form, i. e., interstitial nephritis, or small red kidney, albumin being in neither case any indication as to the severity of the lesion or the degree of change of the organ. The faith of the examining physician should be placed upon the microscopic findings in a centrifugalized sediment as well as upon the physical signs, Color, twenty-four-hour quantity, and the specific gravity.

CHRONIC INTERSTITIAL NEPHRITIS.—The contracted kidney may be white, as described above, as a sequence of the large white kidney, or independent and primary; or red, a sequence or, better, a concomitant of arterio-sclerosis. By far the most common form

is the hard red kidney always associated with arterio-sclerosis, be the cause what it may.

The contracted kidney is always small and the capsule is thick and strips with great difficulty, tearing the kidney tissue. The surface of the organ is granular, irregular and covered with nodules, sometimes even markedly lobulated, simulating the hog's kidney. Small cysts are frequently seen upon the surface. The color is often dark-red. On section, the substance is very tough, the cortex is thin; the pyramids, however, are less wasted. The arterial walls are greatly thickened and stand out prominently from the surrounding tissues. Microscopically, a marked increase in the fibrous elements throughout the whole organ is seen, but most advanced in the cortex. Early stages show small round cell filtrations between the tubules and around the glomeruli; finally fibrin formation takes place around the glomerulus constricting it. The changes in the glomerulus itself are very striking; complete atrophy and destruction, leaving small hyalin masses, is the end result of interstitial overgrowth. Glomeruli less affected show thickening of Bowman's capsule and increase in the cells in the malphigian tufts. The tubules show changes in the lining epithelium. In advanced interstitial proliferation the tubules are entirely atrophied; others show no epithelium at all. In less severe areas, the epithelium shows hyalin, granular and fatty degeneration, and the tubules are widely dilated, containing debris and tube casts. The dilatation may be so extreme as to form minute cysts.

The arteries show advanced sclerosis; the intima is thickened and the adventitia and media show marked change, consisting in increase in their thickness, due to proliferation of the connective tissue in the media. This takes place at the expense of the muscular elements.

As before stated, associated with this condition is arterial sclerosis everywhere, and consequently hypertrophy of the heart. The heart is often of extreme size, the *cor bovinum* being found in this disease. In such cases, the whole heart is hypertrophied, more usual, perhaps, is hypertrophy of the left ventricle, depending, of course, upon the amount and extent of diffuse arterial degeneration.

With the small, contracted kidney, large amounts of urine of a

low specific gravity are found. The patient gets up three or four times during the night to urinate. Osler well states that "No parallelism can be made between the weight (meaning size) of the kidney or its appearance and the urine it secretes."

Albumin is of less importance in these cases than in any of the other forms of nephritis. The low specific gravity is, however, of the utmost import. A persistent low specific gravity is a constant feature of this disease. Traces of albumin are found, but may be entirely absent for days. The sediment is always scanty, and in it a few hyalin, and finely granular casts are almost always present, even when no albumin content exists. With marked general arterio-sclerosis the quantity of urine may be less than normal and the specific gravity may be normal. The amounts of albumin vary with the character of the food and the amount of exercise taken. It is greater in amounts the greater the degree of arterio-sclerosis. Albumin free intervals are less common in advanced arterio-sclerosis, albumin being present occasionally without casts. On the other hand, when absence of albumin occurs in chronic interstitial nephritis, casts are apt to be found in the sediment.

One word about urine examination. Much has been written about detail examination of urinary constituents. What is necessary, however, in the diagnosis of renal affections may be summarized in a few words. First, the twenty-four-hour quantities of urine must be obtained. The examination of specimens passed in the office or on rising are by no means reliable. A mixed specimen of the day and the night total amounts should be used for examination, with special reference to the specific gravity, the albumin content and the sediment. Again, separate estimation of the day and night quantities is of importance, the increase of the night quantity over the day amount being characteristic of chronic Bright's. One examination of a patient's urine, even under the above conditions, is by no means enough. It may be that only upon the fourth or fifth consecutive examination albumin is found, so that we are not justified in saying anything about a given kidney unless we have made several thorough examinations of the urine.

Besides the qualitative tests for albumin, a quantitative estimation should be made. We may then keep a record from day to day in a given case of nephritis as to the total number of grams

of albumin excreted. The specific gravity again is of utmost importance. A persistently low specific gravity with a high tension pulse may be enough to justify a diagnosis of contracted kidney associated with arterio-sclerosis. The twenty-four-hour quantity then, specific gravity, reaction, tests for albumin and microscopical examination of the sediment are essential.

I do not wish to go into the subject of urea. Sufficient to say that, for any clinical purpose, the estimation of urea and urinary solids is of little value, unless the dietary be exactly known and general metabolic processes carefully watched. The microscopic examination of the sediment reveals a good deal, but not all that some text books would have us believe. We can tell with the microscope the character of the casts. Here let me urgently insist that a simple statement of casts is not enough—we must know what sort of casts are present. Pure hyalin and finely granular casts are consistent with an interstitial kidney, but what we must hunt for are casts with fat globules adherent, with red blood cells adherent and with small round fatty cells adherent, if we would get indications of parenchymatous changes in a kidney. Coarsely granular casts, then, epithelial casts, even pure fatty casts, all must be carefully searched for and recorded. Severe parenchymatous disease (large white kidney) shows fat almost pathognomic. Acute nephritis shows blood and epithelial casts. It is not possible to say, however, where a given cell in a urinary sediment comes from. It is much better microscopy, much better scientific work, to record a small round cell than to say a renal cell for small round cells exist in the pelves of the kidney, in the ureters and in the neck of the bladder.

In closing, let me urge careful examination of the total twenty-four-hour quantity of urine. Repeated examinations, rather than the single life insurance examination. Observation upon the specific gravity, the reaction, the albumin and the sediment. I purposely omit any mention of sugar, which would come, of course, into a routine examination, but has no place in nephritis after the first eliminating examination. Let it not be supposed from what I have said that an examination of the urine will always positively reveal the absolute pathology of the kidney. No. But I do wish to have it supposed that in contradistinction to Cabot in his anarchy against urinary examination as indicative of

kidney pathology, it is possible for us to make an almost positive, if not absolute, diagnosis by the observance of the physical signs, i. e., specific gravity, twenty-four-hour quantity and color, in close connection with the intelligent interpretation of the quantities of albumin, and the quality of the microscopic sediment, not forgetting, of course, the clinical symptomatic picture.

DR. J. T. HALSEY, of New Orleans, read a paper entitled:

The Physiology and Pharmacology of Nephritis.

Owing to the length of our program, it has been deemed best to limit the scope of this paper to a discussion of the physiology and pharmacology of urinary secretion in nephritis.

While our knowledge of the function of urinary secretion in health, and of the manner and extent to which it may be influenced by drugs is still incomplete, there are certain definitely established facts with which we may start.

Urine is the result of pseudo filtration through the glomeruli and of secretion by the cells of the tubules. The quality and quantity of the urine in health vary with the blood pressure in the kidney, especially in its capillaries, the amount of blood flowing through these capillaries, and the composition of the blood, especially its content of water and the solids ordinarily found in the urine, such as urea and other nitrogenous substances and the various-inorganic salts. These substances are commonly spoken of as "*harnfahiger*" substances. An increase in the blood pressure or an increase in the amount of "*harnfahiger*" substances in the blood will, under normal circumstances, cause an increase in the volume of the urine and in the solids secreted.

In nephritis we may have either an increase or a decrease in the amount of urine secreted. The former condition may interest us here for physiological reasons. Polyuria in nephritis will invariably be found to be due either to excessive ingestion of fluid or to be one of the results of abnormally high pressure as shown by the high tension pulse and exaggerated second aortic sound. This symptom of polyuria, fortunately, rarely calls for energetic interference, but usually yields to moderate restriction of fluids.

It is the cases with diminished urinary secretion which more especially interest the clinician, and which should be more closely studied here. Diminished urinary secretion in nephritis is due to one or several of the following factors: Too little blood pressure in or blood flow through the capillaries, or to partial or complete impermeability of the larger or smaller proportion of the glomerular filters.

The former condition, of too low blood pressure in, or too small blood flow through the capillaries, may be the result either of impaired general circulation or of local conditions in the renal capillaries, they being more or less completely engorged with blood, with consequent blocking up of their channels. The lessened permeability of the glomerular filters may result from acute or chronic changes in the cells of these capillaries or in the lining cells of the tuft.

It is essential, if we are to treat the symptom of diminished urinary secretion intelligently, that we should endeavor in each case to decide as to the cause of this symptom, and to remember that in any case any one or more of the above-mentioned conditions may be present, and that from time to time any case may pass from one of these conditions to another.

The excretion of water by the diseased kidney is a portion of our subject where we have not as complete knowledge as is desirable. About all that we can say of this matter is that the power to excrete water varies markedly in different cases of nephritis, and also in the same case at different times. A practical rule to guide us in the administration of water is as follows: In nephritis where the urine is scanty and there is edema, water is excreted with difficulty, and we will best protect the diseased organ by limiting the ingestion of fluid to very moderate amounts. When urine is secreted freely, there is no reason to prevent our patients from drinking as much as two to four pints of fluid in twenty-four hours.

Certain substances widely used as, or in, foods are distinctly irritant and harmful to the kidney. Among these we may mention pepper and other condiments, or spices, radishes, celery, onions, asparagus, tomatoes and alcohol. Naturally, such substances should be excluded from the diet of nephritis.

The study of the diuretic action of drugs has shown that their

diuretic action, as a rule, is due to their causing either increased blood pressure in, or increased blood flow through the kidney capillaries, or more often to a combination of these two actions. However, the different diuretics differ among themselves in the manner in which they produce these results.

For purposes of this discussion, and also, as the writer believes, for clinical purposes, he desires to consider our diuretic drugs under three headings, which he would call:

- A. Circulatory diuretics (*digitalis, et al.*);
- B. Direct diuretics (*Caffein, Theobromin, et al.*);
- C. Irritant diuretics (*Uva ursi, Squill, Mercury, et al.*).

The circulatory diuretics cause an increase in urinary secretion as a result of their improving the heart action, increasing both blood pressure and blood flow throughout the body, and, therefore, also in the kidney. In addition to this direct action on diuresis, such drugs, in cases with edema, by improving the general circulation, favor absorption of exudates and so bring about an increase in the amount of water and other "*harnfahiger*" substances in the blood, and this also favors increased diuresis.

The direct diuretics owe their action on urinary secretion chiefly or entirely to a local action in the kidney, which leads to widening of the renal arterial vessels, with a resulting increase in blood pressure and blood flow in the renal capillaries. The drugs, which I have included in this class, appear to have this action on the renal and coronary vessels alone, and not to cause any irritation or damage to the kidney cells. In this lack of irritant action we find their chief difference from an advantage over the drugs of the third class, that of the "irritant diuretics." The drugs of this class undoubtedly possess, to a decided degree, the power of causing an increased urinary secretion, but fortunately this is not all they do. When we examine more closely their method of action we find that the increased diuresis is, as is the case with caffeine, the result of increased blood flow and blood pressure in the kidney; but we find also that these circulatory effects are the results of decided irritation and damage to the kidney cells. Both experimental study and clinical evidence indicate unmistakably that these drugs cause marked poisoning of the kidney cells, that this causes increased blood flow with the resulting increased diuresis, and that, as a rule, the increased diuresis is of but short duration,

to be followed later by evidences of further impairment of the kidney function. Of this group, mercury is, in the writer's opinion, at the same time the most efficient and the least harmful.

What therapeutic conclusion can one draw from a consideration of the above facts?

The writer's own conclusions are as follows:

1. Digitalis and similar drugs will be of value, and therefore are indicated only in cases of nephritis where the general circulation is unsatisfactory, and that they are contra indicated unless this be the case.

2. Drugs which he has placed in the class of irritant diuretics are contra indicated in all cases of nephritis except as measures of last resort, where the outlook is for a fatal termination, unless some change takes place. Here the writer's preference is for mercury or calomel, with or without digitalis or squill.

3. Caffein, the bromin and the potassium salts appear to cause little or no direct damage to the diseased kidney, and may usually be administered to all cases of nephritis with diminished urine, without harming the patient. The writer has rarely seen good results from their use in cases of acute nephritis or cases with marked congestion of the kidney.

4. In the administration of fluids we should be guided by the power of the kidney to eliminate water. When the kidney is secreting freely, moderate amounts of water may be advantageously administered.

In a case of nephritis with scanty urine and marked edema, the giving of large amounts of fluid "to flush out the kidneys" is irritational, without experimental or clinical basis, and almost certain to do harm.

5. Where the kidney function is impaired, the patient should avoid including in his diet large amounts of nitrogenous food, spices of all sorts, and alcohol, except in very moderate amounts. Carbohydrates and fats may be taken freely in such amounts as he may be able to digest and absorb. The drinking of large amounts of fluid as a regular daily routine puts an unnecessary amount of work on the diseased kidney, and should, therefore, be avoided. There is some reason to believe that in chronic cases without edema it is a good plan to have the patient about once a week drink freely of water during a period of twenty-four hours.

The Medical Staff of the Touro Infirmary.

At a meeting of the staff held November 6, 1908:

DR. FENNER presented: 1. *A Case of Undescended Testicle With Left Inguinal Hernia.* The hernia was operated on by the Bassini method. At the same time, the testicle was brought down; but, owing to the shortness of the cord, it retracted, and, two months later, necessitated a second operation, from which the patient made a good recovery. The result was excellent. (Discussed by Dr. Nelken.)

2. *A case of Tetanus with Recovery.* The patient was a boy, who, on September 29, ran a nail into his foot. There was little pain, and his mother washed the wound with peroxide. He came to the clinic on the 8th of October with the wound almost healed, complainining of trouble in opening his mouth. The wound was dressed, and he was admitted to the hospital. He was given tetanus antitoxin twice daily for four days. During this time he had several tetanic spasms, which necessitated the use of morphin and the bromides. After this, the condition rapidly subsided, and the patient made an uneventful recovery.

Discussed by Dr. Matas, Dr. Weis and Dr. Logan. In this connection, Dr. Matas made some remarks on the etiology of tetanus, following comparatively trivial operations about the perineum. He quoted the observations of Verneuil to show that the contamination could come from vegetables, such as celery, lettuce and others used as greens. This was due to the fact that the land was fertilized with manure, which was known to contain the tetanus bacilli; consequently, he considered it important, as a preventive measure, to be careful as to what a patient ate preceding an operation. He advocated the use of an antitetanic diet of cooked food for at least three days preceding the operation, and that all green vegetables and uncooked food be prohibited. He related an instance of his own where the patient had, after a trivial operation on the perineum, died from tetanus. He investigated the case and found that the patient, previous to coming to the hospital, had eaten largely of lettuce, celery and such greens, and he attributed the infection to this cause.

DR. LEMANN presented: 1. *A case of Syphilis of the Liver.* The patient was a white male, aged 57, who came to the clinic in February, 1908, complaining of constipation. He had had the

initial lesion sixteen years before. He had been a heavy drinker up to four years ago; he had recently lost much weight; his liver was much enlarged, and the diagnosis was, for some time, in doubt. The rectal examination was negative. The patient rapidly improved in general health and the liver diminished in size under inunctions of mercury and large doses of potassium iodide. He was, therefore, led to conclude that the above diagnosis was correct.

2. A case of *Syphilitic Osteoarthritis of the Spine*. The patient was a male, aged 45. He had his infection at the age of 18. Two years ago he suffered from a right hemiplegia, from which he recovered in four months. In August, 1907, he complained of a pain in the back, and showed no improvement under protoiodide treatment. He was treated at various times with atoxyl $1\frac{1}{2}$ to $3\frac{1}{4}$ grains every second day, injections of salicylate of mercury and with inunctions of mercury. During this time the slightest cessation of the treatment led to the appearance of skin lesions, headaches and periostitis. The case was an excellent instance of the persistency and severity of infections, after many years, from the onset, in spite of rigorous treatment. The spine was examined by Dr. Hatch, and he reported it to the "Syphilitic Osteoarthritis." (Discussed by Dr. Roussel.)

DR. GUTHRIE presented a case of *Aneurism of the Aorta*. The patient, a male 55 years of age, complained of weakness and loss of weight. He formerly used alcohol to excess, but denied syphilis. Examination showed the presence of some emphysema of the lungs and a dullness extending on the left side, under the clavicle, to a point three inches from the midsternal line. This was separated from the cardiac dullness by a deep sulcus. There was the same dullness on the right side. The aneurism could be plainly seen with the fluoroscope. None of the other ordinary signs were present.

DR. WEIS presented: 1. A case of *Hypertrophic Cirrhosis of the Liver*, showing a marked caput medusæ.

2. A case of *Malignant Endocarditis*. This case was remarkable for the length of time it existed. The patient had been, for nearly three years, showing constant temperature. This varied from 100 to 100.8. Repeated blood cultures were negative. His physical condition was as good as when he came under observa-

tion. Except for the heart, the physical examination has been continuously negative. There was no leucocytosis. No etiological factor could be found.

Dr. Weis also reported a case of a patient with typhoid, who had suffered from two severe attacks of abdominal pain, suggestive of perforation. In the four weeks of illness there had been no change of pulse or temperature. These attacks cleared up without any other serious symptoms appearing. In the sixth week the patient suffered an attack of cystitis, which cleared after four days under urotropin. (Discussed by Dr. Matas, Dr. Roussel, Dr. Kohlmann, Dr. Nelken and Dr. Simon.)

DR. MATAS presented a case of *Cirroid Aneurism with Pulsating Exophthalmos of Traumatic Origin*. This was the result of a fracture of the base of the skull, which involved the cavernous sinus. The patient had received a blow on the back of the head from a sand bag eighteen years before. He was unconscious a short time, and had had headache for nearly two months, and diplopia. On recovering, he was blind in the left eye. One and a half years later the common and external carotids were ligated for enlarged pulsating vessels on the forehead. This, for a short time, relieved the noise in the ears, which had been present for six months. Shortly after, heavy lifting caused a return. At the present time, he showed pulsating exophthalmos on both sides. The right eye movements were normal; the left eye was fixed in a convergence position. The right fundus was normal; the left fundus showed extremely small vessels. There was no hemianopsia. The tinnitus could be heard on the left side. The condition is progressing very slowly, or not at all. (Discussed by Dr. Weil and Dr. Feingold.)

DR. SIMON presented a case of *Benign Pyloric Stenosis*. The patient, aged 38, came to the clinic early in September, complaining that for a year and a half she had been suffering from stomach trouble. She had shortness of breath, a cough and pain in the epigastrium, and vomiting at irregular intervals. Her appetite was very good. She had lost fifty-two pounds in a year. Examination of the stomach showed stasis, high acidity, scantiness, and spirals, but no blood. The urine was negative. The stomach inflation showed considerable dilation. On October 7 Dr. Bickham performed a Finney pyloroplasty for a firm stricture of the

pylorus, which would with difficulty admit the little finger. Since the operation, the patient has gained twenty pounds, and is now on full diet.

DR. KOHLMANN presented four specimens of *Carcinoma of the Uterus*, removed, one by the abdominal method, one by the vaginal method, two by the Wortheim method. The patients, with two exceptions, made an uneventful recovery. One developed a urethral fistula on the twelfth day. The other developed fat necrosis of the abdominal wall. He showed a specimen removed from a woman aged 40, who had two children. She had a large abdominal swelling, which had been variously diagnosed as fibroid and pregnancy. The operation revealed a large tumor of the right ovary, extending into the broad ligament, containing seven pints of tarry fluid.

DR. ROUSSEL reported two cases of *Leucoderma*, which had been cured by the use of the X-ray. He had also observed that patients cannot stand the X-ray well in summer. From the months of March to September, an exposure of three minutes was sufficient to produce a burn, and he often found it difficult to produce a burn, at all, in the winter months. He had never seen an X-ray burn produced during the winter months.

Orleans Parish Medical Society Proceedings.

President, DR. AMÉDÉE GRANGER.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.
DR. HOMER DUPUY and DR. S. K. SIMON.

MEETING OF SEPTEMBER 12, 1908.

DISCUSSION OF DR. ALLEN'S PAPER.

DR. LAZARD: Gonorrhea, in its chronic form, as I stated at the Louisiana State Medical Society meeting, is no indication for prostatic massage. Gonorrhea over eight weeks does not indicate prostatitis. Have had a great deal of experience in prostatic massage, and I do not want to condemn it, but to call a halt in its practice. Know cases where massage carried so far that the

spongy condition of the rectal mucus membrane resembling piles was produced. I now recall the case of a man who had prostatic massage practiced, and his doctor tired of the job, and told him to go to another doctor to have massage performed. He came to me and got on well on through and through irrigation. Had time to drink and go around carousing, but could get no recurrence of the prostatic infection.

DR. NELKEN: I have been much interested in listening to Dr. Allen's paper. There is one class of cases of gonorrhea in married men which the doctor did not touch upon, however, and that is gonorrhea in married men contracted after marriage.

I have been much surprised to see how common is this inexcusable occurrence. Nor does there seem to be any age limit. I have under treatment a married man of 55, with gonorrhea recently contracted.

The family physician is often disinclined to suspect a man whom he knows well of straying into strange paths, and the wife is infected before the real condition is recognized.

I recently saw an instance of how grave marital infection may prove. The husband had infected his wife, who was just three weeks out of child-bed. She in turn had infected in some manner a 3-year-old daughter, who had a specific vaginitis. This child, possibly by using the toilet or a common washrag, infected a little girl cousin, who likewise had a vaginitis. This last child infected her eye and had a narrow escape from losing it.

DR. KAHLE: Have had any number of cases, and there is danger of discharging a man cured by mere examination of urine. Often found these examinations absolutely negative, and tried to bring out germs with silver nitrate solution, and found it impossible to get any evidence. But prostatic or seminal vesicular massage will bring out the bacteria.

DR. BASS: I have had occasion to examine a good many smears from chronic gonorrhea cases and have been surprised at the small number of cases in which gonococci were found, but usually some other organism instead. The impression is soon made that chronic gonorrhea is not due to the presence of gonococci, but is actually the sequel of a previous gonococcic infection.

It is also difficult to understand how gonococci can remain

alive in pockets or cavities of the prostate and elsewhere for great periods of time.

DR. ALLEN (in closing): I had purposely omitted the subject of treatment as it is difficult to handle in a paper of this kind, but many useful points have been brought out in the discussions and I agree with Dr. Lazard that massage may be harmful if carried too far in certain individuals. A posterior gonorrheal infection may get well and lead up to a catarrhal infection in patients predisposed to catarrhal affection. But cases showing no gonococci do not disprove the fact that the case is gonorrheal in origin and these subjects may be capable of conveying the infection to others. Gonococci have been found 26 years after infection. Others 18 to 19 years, and some in between these. A man incapacitated by an attack of gonorrhea 14 years ago caused him later to give up business and has been more or less incapacitated since. I treated this case in conjunction with Dr. Bass. It was a chronic gonorrheal cystitis.

DISCUSSION OF DR. CAZENAVETTE'S PAPER.

DR. McILHENY: I feel very much indebted to Dr. Cazenavette for presenting such a thorough and valuable paper to the Society; it is so extensive that there is very little left to say except from an orthopedic standpoint. In paralyzes following anterior polio-myelitis we find three distinct stages. A first stage when the paralysis progresses, a second when it is stationary, and a third when certain of the paralysed muscles partially or totally regain their function. I hold the first stage to be the most important, as it makes itself evident immediately following the initial attack, when the motor cells are crowded by the inflammatory process, and we are more apt to get marked response to our treatment than in any of the other stages. The bulk of the responsibility rests upon the family physician since it depends upon his ability to recognize the condition immediately and institute treatment, or turn the case over to the specialist. It is extremely seldom that the specialist is so fortunate as to see a case in the first stage for two reasons, first, because the first stage is very short, a day or two to possibly a week, and second, because the paralysis is not always recognized until it is time for the child to begin to walk. If we are so fortunate as to see a case during the first stage, we can accomplish a great deal with the application of active hyperemia up and down the spine induced by

Bier's vacuum cups, and the application of massage and elicticity.

I have seen two cases during the first stage, and immediately began this treatment with excellent results; one seen three days after the initial attack resulted in a complete cure, except for a loss of the patella reflexes, in three months; a second was seen a week after the initial attack and was treated for six months when only a slight valgus of the right foot still remained. The parents of such cases should be carefully instructed as to the treatment they may cary out at home, such as the stretching of tendons and so prevent contractions and deformities. As the Doctor mentioned in his paper, strychnia and electricity are most important, and I only mention it so as to emphasize his words.

From an orthopedic standpoint there is a great deal to be said, but I will leave that till a later date. What we must do is to endeavor to prevent deformity and to assist nature as much as possible so that the nerve cells may be regenerated, if we neglect to do this we sentence the patient to a life with frail joints, contractions and orthopedic braces, or to operations of arthrodesees and tendon transplantations.

DR. DABNEY: Gentlemen: I think I am the only general practitioner left in town. In fact, I know I am, since listening to the specialists on clap and nervous diseases. Have seen any number of cases, and one this summer, in June, when I went across the river with a colleague of mine. Before being taken ill the boy was robust and vigorous, both parents were tubercular. When affected, the child could not use his leg. Do not believe in those reflexes. Tight prepuce was the cause in this case. Iodide of potash in a good many children, starting on five drops, have produced good results. Treated this case with inunctions of olive oil and antitubercular treatment.

Another boy, 14 years old, badly paralyzed, in another man's practice, when I saw him was bedridden. Treated with iodide of potash, galvanism, no strychnin, and derived good results.

Another case, a boy, one leg and one arm affected; leg got along all right and the arm will get along all right. Treated with galvanic current, iodide of potash, no strychnin, and nourished freely with good food.

Therefore those cases that do not thrive with the iodide will not improve otherwise.

DR. CAZENAVETTE (in closing): I did not mention in my paper the condition of the patients. Five cases were affected with drop foot, two of these, one eight months' and the other nine months' standing, and cannot walk. One of abdominal paralysis and hernia, beginning two weeks after the onset, well marked for three weeks, but now subsiding.

MEETING OF SEPTEMBER 26.

DISCUSSION OF DR. CHALARON'S PAPER.

DR. LAZARD: I have not very much to say, except that the figures agree very much with my own; that is, about 35% of the cases of gonorrhea are contracted from prostitutes. Therefore, the safer way for men to avoid gonorrhea, if they must have illicit intercourse, is to cohabit with prostitutes, whose livelihood depend more or less on her working efficiency. The proportion is reversed when we enter into consideration of syphilis; that is, the greatest number of cases of syphilis are obtained from the prostitutes. This leaves very little for a man to select.

DR. CHALARON (in closing): As to the preponderance of gonorrhea the figures given are not my own, they are Prof. Neisser's. The 35% covers 14 years of my own statistics, and may be less, about 30%. Women in some houses of ill fame hand you after sexual intercourse bi-chloride tablets as a preventive.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Free Tuberculosis Clinic.

As a direct result of the efforts of the Louisiana Anti-Tuberculosis League, the first of several clinics for the treatment of tuberculosis was inaugurated on Monday, November 2, at No. 1309 Tulane Avenue, New Orleans.

While notice has now and then been taken of the work of the League, it deserves every encouragement that can be brought to bear upon its efforts and both the public and the profession owe the institution now established a support, moral and practical.

The experience in other cities has already shown the advantage of clinics of this sort, not only in the results obtained in the relief of those ill with so dread a disease, but in the educational influence upon the communities themselves.

It is to be hoped that this beginning will meet with such great success that the original plan of establishing similar clinics in different parts of the city of New Orleans may be made possible of fulfillment.

Leprosy and Bed Bugs.

The French periodicals recently noticed a projected expedition to the Danish West Indies for the purpose of studying the relation of bed bugs to leprosy. Dr. Edouard Ehlers, of Copenhagen, is quoted as responsible for the organization of the excursion.

Since the discovery of the lepra bacillus in the bed bug (*Cimex lectularis*) and in the mosquito (*Culex fatigans*) by Dr. E. S. Goodhue, of Holuoloa, H. I., considerable scientific interest has been elicited as to the exact part played by these insects in relation to leprosy.

The recent discovery of organisms in rats examined in San Francisco, and which sufficiently resembled the lepra bacillus as to be named "lepra-like bacilli," together with the findings above,

promise to make fields of investigation in leprosy even more interesting than they have already been.

Both in the Philippines and Sandwich Islands, the United States Government has for some time encouraged the study of this disease in the different colonies established, and by the time of the proposed conference in Bergen, in 1909, some report of such work should be forthcoming.

The close resemblance between leprosy and tuberculosis has often been observed by both clinicians and bacteriologists studying these diseases and the differences in the habit of the bacilli have been very much more potent in distinguishing the two than have the actual points of difference in the physical properties of the individual bacilli themselves. As yet no successful culture of the lepra bacillus has been made. Byron, Bouffé and Babes claim to have made cultures, but the resultant products have differed so much from the bacilli as found in the body that doubt has always been thrown upon the culture.

The role of insects in relation to disease has advanced wonderfully in recent years, and all credit is due to investigators who have brought application of the knowledge of this to bear upon diseases and their treatment. We should, however, be very careful in gathering conclusions before they are entirely mature. The knowledge of the fact that insects, vermin, and even lower animals may carry the organisms of diseases already recognized is no certain or conclusive argument that these are necessarily the media through which the diseases are carried to the human being; these hosts may themselves be the victims of the same processes which obtain in individual types of higher organization.

Conference on Pellagra.

The South Carolina conference on Pellagra on October 29, was quite a gathering. State officials and others met at Columbia, South Carolina, under the auspices of the South Carolina State Board of Health to study the Pellagra situation. Dr. J. W. Babcock, the Superintendent of the State Hospital for the Insane of Columbia, has done considerable work not only in the study of pellagra, but in creating public and professional interest in the same, and the conference referred to was largely brought about through his endeavor. The published report of the conference

has not yet appeared, but it should attract considerable attention throughout the South, where a considerable part of the dietary is made up of one or another form of maize.

It is especially creditable to Dr. Babcock and to Dr. George H. Searcy (of the Alabama Insane Hospital at Mt. Vernon) that the established presence of this disease in institutions should have been made so generally known. More than ordinary interest has already attached to their findings, and it is quite likely that the exploitation of the knowledge of this disease may lead to its recognition outside of institutions. Obscure cases of erythematous conditions with fatal issue may now be recognized as pellagrous in character and, with the information afforded for the study of this disease, the diagnosis should be easy, even at the hands of those who are not expert.

The New Dean of Harvard Medical College.

It is entirely appropriate for us to notice the appointment of Dr. Henry Asbury Christian as Dean of the Faculty of Medicine and Dean of the Medical School of Harvard University. We share with every Southern publication the desire to acknowledge a distinction of this sort conferred upon a Southern man. It is more than a matter of mere medical interest that Dr. Christian, a Virginian by birth, should have been selected as the head of one of the leading medical schools in the country and that in the City of Boston. It is a tribute to his attainments, to his executive ability, and, by no means least, to his personality.

Abstracts, Extracts and Miscellany.

Department of Internal Medicine.

In charge of DR. E. M. DUPAQUIER, New Orleans.

THE THERAPEUTIC TEST FOR SYPHILIS.—I have seen severe attacks of angina pectoris in a white man, age 48 years, who claimed to have been in good health, before, and, who is not of a nervous temperament. He admitted having had a very small venereal sore, some twenty years ago, for which he was successfully treated

and discharged as well by a competent physician inside of three weeks.

It was, therefore, natural that I should have made the diagnosis of cardiac arteriosclerosis, in the main arteriosclerosis of the coronaries. The routine KI test, pushed to 7 grams KI in 24 hours, failed to arrest the attacks; and, I thought, at first, that the affection would continue uninfluenced by vigorous treatment. But, in testing for syphilis, mercury must be tried too. So, I pushed mercury by needle, cautiously. Some cases of late syphilitic manifestations will yield not to iodine, but to mercury only. I used the following:

Corrosive mercuric chloride.....	0.10
Chloride of sodium.....	0.075
Distilled water (sterilized).....	10 c.c.

One c. c. contains 0.01 of sublimate, corresponding to 0.0074 of mercury.

I injected one c.c. every day, for three days. Then two c.c. every day for three days. Then two c.c. twice a day for three days, increasing to three times a day, until 0.60 of sublimate had been taken without ptyalism, when the patient improved, decidedly so. The syringe was an ordinary Luer's whole glass, and the needle an ordinary one and a quarter inch. The injection was pushed in the gluteal region, deep enough to reach the muscles. The patient was lean, and a male.

Subsequently, to the case mentioned above, I had the occasion of seeing, in consultation with a popular practitioner here, a puzzling case in which the test for syphilis was suggested. I recollect the "*sourire narquois*" of my confrère, when I suggested mercury, first, as a test. The routine KI test was the only one my confrère had used. The patient never responded and died as we expected, of exhaustion. But, this is not the point, for some cases of late syphilis progress uninfluenced to a fatal issue. The point is that the KI test is not the only test for syphilis. This is not written for those who know. E. M. D.

THE POLYCLINIC TEACHER.—While it is granted that a large number of matriculates in post-graduate schools are men of ability who seek instruction to perfect themselves in special work and they want not only teachers, but masters in their specialty, yet there is a larger number of post-graduate matriculates who seek instruction merely to brush up. Some of these knew much

at one time, but they got rusty and forgetful; others never knew much from their school-days and are waking up to learn. They want a plain teacher who will take the pains of presenting to them in an interesting manner, common knowledge, the rudimentary as well as the advanced reliable knowledge, useful to the practitioner of to-day.

It is no pleasant task for the master who soars, to hash and rehash. Yet, polyclinic schools are expected to do that very kind of rescuing work.

Therefore, a Polyclinic Faculty should be made up of Innovators and Renovators, all equally skilled in their work from the highest to the lowest. It is the same old story of "*Vale. utile dulci.*"

E. M. D.

ARTHRITIS.—"If an acute polyarthritis does not respond to the salicylates, I try colchicin 0.0006 (1-100 of a grain) in tablets, every hour, until the condition is relieved or toxic symptoms from colchicin supervene.

In gonorrheal arthritis, serums and vaccines have proved efficient; but in every case a careful examination of the deep urethra, prostate and seminal vesicles, is absolutely necessary; and, if any inflammation remains it should be treated locally (etching with nitrate of silver). I have seen several obstinate cases cured by this means alone." (Potter—Editor, Ortnier's Treatment of Internal Dis.)

Department of Ear, Nose and Throat.

In Charge of A. W. DEROALDES, M. D., and GORDON KING, M. D.,
New Orleans.

DR. GOODALE, of Boston, whose researches on the histology of the tonsil and its pathology are well known in the laryngological world writes of his beginning experiments with interstitial injections of silver nitrate as a means of bringing about the absorption of enlarged tonsils when there are contra-indications for tonsillectomy. In three cases in which arthritic symptoms appeared to be dependent upon enlargement of the tonsils silver nitrate was employed both by introduction into the crypts and interstitial injection with the result that the arthritic symptoms improved and the tonsils diminished considerably in size.

In all three cases a history of hemophilia existed and tonsillectomy was not considered advisable.

The effect of the treatment is theoretically in harmony with the normal process of retrograde metamorphosis of the gland which takes place in later life. A four per cent solution is injected into the parenchyma of the gland with a hypodermic.—*Transaction, Am. Laryngological Assoc., 1908.*

Medical News Items.

THE SECOND ANNUAL MEETING OF THE SOUTHERN MEDICAL ASSOCIATION was held at Atlanta November 11 and 12. The session was opened with an address of welcome by Honorable Hoke Smith, Governor of Georgia, and Dr. Olmstead, of Atlanta. Response was given by Dr. Savage, of Nashville. Dr. Wyman, of Birmingham, in his presidential address, reviewed the field of usefulness open to the Association, and urged the members to active interest in this and subsequent meetings of the organization. It was emphasized that the similarity of interests of the members of the profession in the several States of the South, the common peculiarities of diseases encountered, proximity and other such considerations were ample reasons for the existence of this as a Branch Association of the A. M. A. The sessions were held in three sections—Medicine, Surgery and Ophthalmology. Although all the sections were well attended, that of Medicine fared best. The papers read were of a very high class, and for the most part of special interest to Southern physicians, several reports on original research being presented. The pronounced success of this meeting argues well for the future of the organization.

Among the distinguished guests present were: Dr. W. S. Thayer, of Baltimore; Dr. Butler, of Chicago; Dr. Heiser, U. S. P. H. and M. H. S., who is presently stationed in the Philippines. Dr. Heiser gave a splendid address on Hook-Worm and Dysentery as Seen in the Philippines. The morbidity and mortality from tropical diseases in these islands have been remarkably lessened by the U. S. P. H. and M. H. S. within the past several years. Simaruba, derived from a plant native to the islands, has been found valuable in the therapeutics of dysentery. It is thought that

a specific has been found in this remedy for dysentery, as over 300 consecutive cases, under careful observation of the surgeons, have been treated and promptly cured.

The visiting members of the Association were lavishly entertained by the Atlanta physicians, the lay people joining in the entertainment with zest. On the evening of the second day of the meeting a splendid reception was given at the Piedmont Driving Club. Luncheon was served at the rooms of the State Board of Health, at the College of Physicians and Surgeons. Over 175 members registered at the meeting, each State included in the organization being well represented. Those attending from Louisiana were: Doctors George Dock, Oscar Dowling, George S. Bel, J. H. White, D. H. Dillon, I. I. Lemann and E. M. Hummel. The Secretary reported a decided increase in the membership of the Association since last year.

The following officers were elected for the ensuing year: Dr. G. C. Savage, Nashville, President; Vice-Presidents: Drs. J. M. Jackson, Florida; A. M. Murry, Mississippi; George Dock, Louisiana; F. A. Casly, Alabama; J. C. Olmstead, Georgia; E. C. Elliott, Tennessee. By unanimous vote Dr. Oscar Dowling was re-elected Secretary-Treasurer and tendered the sincere thanks of the Association for his continued efforts in its interests, and without which the meeting would have been much less a success.

New Orleans was chosen as the next place of meeting, November, 1909.

EXAMINATION FOR ASSISTANT SURGEON IN THE U. S. P. H. AND M. H. S.—The Bureau of Public Health and Marine Hospital Service of the Treasury Department announces that the examination for Assistant Surgeon in this service will be held at the Bureau of the U. S. P. H. and M. H. S. in Washington, D. C., on Monday, January 11, 1909, at 10 o'clock a. m. Candidates must be between 22 and 30 years of age, must be graduates of a reputable medical college, and must furnish testimonials from responsible persons as to professional and moral character. For details concerning the examination, intending candidates should address the Surgeon-General, at the above bureau. Successful candidates will be graded in the order of their attainments and commissioned accordingly. Assistant Surgeons receive \$1,600; Past Assistant Surgeons, \$2,000, and Surgeons, \$2,500 a year. In addition, quarters for officers and

families are provided, or a sum equivalent to the same is allowed.

For further information, address the Surgeon-General, U. S. Army, Washington, D. C., or Major W. P. Chamberlain, Medical Corps, U. S. A., Jackson Barracks, New Orleans, La. (phone, Hemlock 248), who will be glad to meet prospective candidates at the Barracks or at any convenient place in town. Circulars containing full information will be mailed on application.

SCHOOL AFFILIATION.—The Cleveland School of Pharmacy has become affiliated with the Western Reserve University. The motive for incorporation is stated as the desire to give the school a university standard and association.

RULES AND REGULATIONS ADOPTED BY THE LOUISIANA STATE BOARD OF MEDICAL EXAMINERS AT A MEETING HELD SEPTEMBER 30, 1908.

"That on and after Oct. 1, 1908, the Louisiana State Board of Medical Examiners will grant a license, without examination, to applicants who will comply with the following conditions:

"1. They must appear in person before the board.

"2. They must present a diploma from a college rated class A by this board (i. e., medical colleges rated between 70 and 100 per cent. by the Council on Medical Education of the American Medical Association.)

"3. They must present their certificate of examination by and from a State Board of Medical Examiners recognized by the Louisiana State Board of Medical Examiners.

"4. They must furnish satisfactory proof of their identity.

"5. They must give satisfactory evidence of good moral character.

"6. They must pay a fee of \$25.

"N. B.—Physicians possessing the above qualifications and who may enter the State between the regular meetings of the Board and desire to practice medicine in this State, may be permitted to do so by appearing before any one member of the Board, paying a fee of \$10, said fee to be deducted from the fee exacted by the Board for a permanent license.

"Said temporary permit shall not be good longer than the beginning of the next regular meeting, at which time a permanent license will be issued, provided the applicant appears in person and pays the balance of the fee (\$15).

"Applicants possessing a diploma from a medical college rated class B by this Board (i. e., medical colleges rated between 50 and 70 per cent. by the Council on medical education of the American Medical Association), in order to obtain a license to practice medicine in this State, must comply with the following conditions:

"Applicant must satisfy the Board that he or she is twenty-one years of age and possess at least a fair primary education.

"1. They must furnish satisfactory proof of their identity.

"2. They must give satisfactory evidence of good moral character.

"3. They must present in person their diploma.

"4. They must pay the examination fee (\$11).

"5. They must pass a satisfactory examination; (75%).

"**TEMPORARY PERMITS.**—N. B.—Physicians belonging to above class B and coming into the State between regular meetings and desiring to enter the practice of medicine, can obtain a temporary permit to practice in this

State by appearing before any one member of the Board and by passing a satisfactory oral examination, paying a fee of \$5 and presenting his or her diploma. The temporary permit will only be good until the beginning of the next regular examination. The applicant will be credited with the \$5, provided he appears at the next regular examination.

1st. Diplomas issued prior to October 1, 1908, from colleges not included in either Class "A" or Class "B," but whose diplomas have been accepted, prior to said date, by the Board, will be recognized to the same extent as though issued by colleges in Class "B."

2nd. Diplomas issued prior to October 1, 1908, from colleges whose diplomas have been, prior to said date, accepted by the Board, will be recognized to the same extent as though they were issued by colleges in Class "A," where the holder presents a certificate of examination issued prior to October 1, 1908, by and from a State Board of Medical Examiners of a standing satisfactory to the Louisiana State Board of Medical Examiners.

"The Louisiana State Board of Medical Examiners recognizes at present certificates of examination issued by the following State boards: Colorado, Connecticut, Delaware, District of Columbia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, South Carolina, Texas, Utah, Vermont, Virginia, Wisconsin."

The Board also adopted the following rules: "That any person who begins to practice medicine in this State without being duly legally authorized so to do, will not be granted a temporary permit subsequent to the first regular meeting of the Board after his beginning such illegal practice."

Applicants holding a diploma from a foreign reputable medical college and desiring to practice medicine in Louisiana will have to:—

1. Present in person a diploma of a standing satisfactory to the Board issued by an Institute of Medical Education.

2. Proof satisfactory to the Board of the genuineness of the diploma presented.

3. Evidence satisfactory to the Board of the good moral character of the applicant.

4. Evidence satisfactory to the Board of the identity of the applicant with the person named in the diploma, and in the certificate of good moral character.

5. If the applicant presents a certificate showing that he has been examined by a State Board of Medical Examiners, whose certificates are accepted by the Louisiana State Board, and complies with the other requirements named under 1, 2, 3 and 4, he may be permitted, at the discretion of the Board, to practice without being subjected to an examination by the State Board of Louisiana.

6. He must pay a fee of \$11. The fee where the examination is not held, as under No. 5, is \$25.

7. Temporary permit can be obtained on same basis as by applicants holding Class A or Class B diplomas.

The following is the list of Medical Colleges as rated by the Louisiana State Board of Medical Examiners, subject to revision by said Board, and is similar to the tentative list issued by the Committee on Medical Education of the A. M. A.

CLASS "A"

ALABAMA: Birmingham Medical College, Birmingham; Medical Department of the University of Alabama, Mobile.

CALIFORNIA: University of Southern California, College of Medicine,

Los Angeles; Oakland College of Medicine and Surgery, Oakland; Cooper Medical College and University of California, Medical Department, San Francisco.

COLORADO: University of Colorado, School of Medicine, Boulder; The Denver and Gross College of Medicine, Denver.

CONNECTICUT: Yale Medical College, New Haven.

DISTRICT OF COLUMBIA: George Washington University, Department of Medicine, and Georgetown University, School of Medicine, Washington.

GEORGIA: Atlanta College of Physicians and Surgeons, and Atlanta School of Medicine; Medical College of Georgia, Augusta.

ILLINOIS: Rush Medical College, Northwestern University Medical School, College of Physicians and Surgeons, Chicago.

INDIANA: Indiana University, School of Medicine, Bloomington and Indianapolis.

IOWA: Drake University, College of Medicine, Des Moines; State University of Iowa, College of Medicine, Iowa City.

KANSAS: University of Kansas, School of Medicine, Lawrence and Kansas City.

KENTUCKY: University of Louisville, Louisville.

LOUISIANA: Medical Department of the Tulane University of Louisiana, New Orleans.

MAINE: Medical School of Maine, Portland.

MARYLAND: University of Maryland, School of Medicine, Johns Hopkins' Medical School, College of Physicians and Surgeons, and Baltimore Medical College, Baltimore.

MASSACHUSETTS: Medical School of Harvard University, Boston University, School of Medicine and Tuft's College Medical School, Boston.

MICHIGAN: University of Michigan Department of Medicine and Surgery, Ann Arbor; Detroit College of Medicine, Detroit.

MINNESOTA: College of Medicine and Surgery, University of Minnesota, Minneapolis.

MISSOURI: University Medical College, Kansas City; Department of Medicine of the University of Missouri, Columbia; Washington University, Medical Department, and St. Louis University, School of Medicine, St. Louis.

NEBRASKA: College of Medicine, University of Nebraska, Lincoln and Omaha; John A. Creighton Medical College, Omaha.

NEW HAMPSHIRE: Dartmouth Medical School, Hanover.

NEW YORK: Albany Medical College, Albany; University of Buffalo, Medical Department, Buffalo; College of Physicians and Surgeons in the City of New York, Cornell University Medical College, Fordham University School of Medicine, Long Island College Hospital, and University and Bellevue Hospital, Medical College, New York; Syracuse University, College of Medicine, Syracuse.

NORTH CAROLINA: University of North Carolina, Medical Department, Chapel Hill and Raleigh.

OHIO: Cleveland College of Physicians and Surgeons, and Western Reserve University, Medical Department, Cleveland; Medical College of Ohio, Miami Medical College, Cincinnati; Starling-Ohio Medical College, Columbus.

PENNSYLVANIA: University of Pennsylvania, Department of Medicine, Jefferson Medical College, Medico-Chirurgical College of Philadelphia, and Woman's Medical College of Pennsylvania, Philadelphia.

SOUTH CAROLINA: The Medical College of the State of South Carolina, Charleston.

TENNESSEE: Vanderbilt University, Medical Department, Nashville.

TEXAS: Medical Department of Fort Worth University, Fort Worth; University of Texas, Department of Medicine, Galveston.

VERMONT: University of Vermont, College of Medicine, Burlington.

VIRGINIA: University of Virginia, Department of Medicine, Charlottesville; Medical College of Virginia, and University College of Medicine, Richmond.

CLASS "B"

ARKANSAS: University of Arkansas, Medical Department, College of Physicians and Surgeons, Little Rock.

DISTRICT OF COLUMBIA: Howard University, Medical Department, Washington.

KANSAS: Kansas Medical College, Topeka.

LOUISIANA: Flint Medical College of New Orleans University, New Orleans.

MARYLAND: Woman's Medical College of Baltimore, and Maryland Medical College, Baltimore.

MISSOURI: The Ensworth Medical College, St. Joseph; St. Louis College of Physicians and Surgeons, St. Louis.

NEW YORK: New York Medical College and Hospital for women, New York.

NORTH CAROLINA: North Carolina Medical College, Charlotte.

OREGON: University of Oregon, Medical Department, Portland.

PENNSYLVANIA: Western Pennsylvania Medical College, Pittsburg.

TENNESSEE: Chattanooga Medical College, Chattanooga; Tennessee Medical College, Knoxville; College of Physicians and Surgeons, and Memphis Hospital Medical College, Memphis; University of Nashville, Medical Department, University of Tennessee, Department of Medicine, and Meharry Medical College, Nashville.

TEXAS: Baylor University, College of Medicine, and Southwestern University Medical College, Dallas.

WISCONSIN: Milwaukee Medical College, and Wisconsin College of Physicians and Surgeons, Milwaukee.

MEETING OF THE FIFTH DISTRICT MEDICAL SOCIETY, TEXAS.—

The Fifth District Medical Society met in San Antonio, Texas, on November 20, with an unusually large attendance. In addition to the regular members of this Association, numbering nearly one hundred, there were quite a number of guests, including Dr. Marvin L. Graves, from the University of Texas, in Galveston; Dr. Ira C. Chase, from the Ft. Worth University; Dr. A. C. Scott, of Temple; Dr. L. W. Field, of Beaumont, and Drs. Dock and Dyer, of New Orleans.

The entire day was spent in scientific work of high order, including papers on *Umbilical Hernia*, by Dr. Scott; the presentation of a case diagnosed as *Myasthenia Gravis*, by Dr. Graves; *The New Operative Principle in Fistula*, by Dr. Chase, among others. The New Orleans representation presented discursive papers on *Dysentery* and *Eczema*, respectively.

The session closed with a most enjoyable banquet at the Rathskeller dining-room of the new Elks Club.

Dr. George H. Moody, of San Antonio, a Tulane graduate, was elected President for the coming year, with Dr. E. V. DePew as Secretary, re-elected, and Dr. J. W. Woolsey as Treasurer.

EXAMINATION BEFORE THE PHARMACY BOARD.—Seven of the sixteen applicants who took the examination before the Pharmacy Board November 6 passed. The examination was held at the New Orleans College of Pharmacy, on Camp Street.

SURGICAL STAFF OF THE SECOND LOUISIANA REGIMENT.—The following doctors have been appointed on the Surgical Staff of the Second Louisiana Regiment: Dr. S. B. Israel, Dr. C. P. May and Dr. F. J. Kinberger

AWARD OF GOLD MEDALS.—Two gold medals, which are given every three years by the International Conference on Tuberculosis for work done in advancing the fight against tuberculosis, have been awarded to Mr. Henry Phipps, of New York, and Dr. Frederick Althoff, of Berlin.

PERSONALS.—Dr. A. W. deRoaldes has returned from Europe, where he spent the summer.

Dr. A. Frank Ives, Surgeon, U. S. A., was in New Orleans from the Philippines, en route to Kentucky.

Dr. S. Rossner was elected President of the Jefferson Parish State Board of Health.

Dr. A. Herald, of Shreveport, and Dr. A. S. Kiblinger, of Alexandria, La., were visitors in New Orleans recently.

Dr. J. B. Guthrie made an address before the citizens of Hammond, La., where an Anti-Tuberculosis League was organized.

Dr. Fred J. Mayer is now connected with the Mississippi Board of Health, and is making a tour of the State in the interest of sanitation.

Dr. Edmond Souchon was in Alexandria last month, where he made an address before the local Medical Society.

Dr. Felix A. Larue has returned from a trip to Rochester and Chicago, where he visited the clinics.

Dr. J. N. Thomas has returned from an inspection trip to Central America.

Dr. W. Ledbetter has been elected City Physician of Shreveport.

Dr. J. J. Castellanos has returned from a trip to New York.

Dr. J. A. Danna has returned from an extended trip to New York, Philadelphia, Boston, Chicago and Rochester, where he visited the various hospitals.

Dr. Frederick Brush, of Boston, has been appointed superintendent of the New York Post-Graduate Medical School and Hospital.

REMOVALS.—Dr. W. B. Mask has moved from Shreveport to Simsboro, La.

Dr. L. A. Sholars from Opelousas to Brusley, La.

Dr. D. T. Willbern from Runge, Texas, to Alice.

Dr. K. W. Ney from New Orleans to Madisonville, La.

Dr. C. B. Harrington from Eudora, Ark., to Wilmot.

Dr. J. H. Levin from Berwick, La., to New Orleans.

Dr. Robert A. Strong from New Orleans to Pass Christian, Miss.

MARRIED.—Dr. James W. Mayes, of Lake Charles, La., and Miss Minnie L. Griffiths, of Kinder, La., were married November 6, 1908.

Dr. Carleton Hunt Cammack, of New Orleans, and Miss Lily Trig Bronson, of Clarksville, Tenn., were married on November 17, 1908, at Nashville, Tenn.

Dr. William Minor Bryan, of New Orleans, and Miss Henrietta Kemp White were married November 5, 1908, at the residence of the bride in Charlottesville, Va.

Dr. Joe Cohn, of New Orleans, and Miss Hortense Holzman, of Shreveport, were married November 2, 1908.

Dr. Lowick T. Patillo, of Atlanta, and Miss Leola Le Rosen, of Shreveport, were married at Shreveport on November 24.

DIED.—Dr. William K. Brooks, of Baltimore, Md., died on November 12, 1908. Dr. Brooks was born in Cleveland, Ohio, sixty years ago, and was Professor of Zoology at the Johns Hopkins University. He was a member of the National Academy of Sciences and the American Philosophical Society.

Dr. Frank E. Butler, of Smithdale, Miss., died on November 1, 1908, at the age of fifty-eight.

Dr. Samuel G. Renshaw, of New Orleans, died on November 9, 1908. Dr. Renshaw was seventy-nine years old at the time of his death. He was the oldest physician at Stock Landing, and probably in the lower district. He graduated in 1852 at Dartmouth, one of the oldest medical colleges in the country, having been founded in 1797. The doctor was whole-souled and jovial, yet a faithful physician as well as friend. He will be mourned by a large circle.

TULANE NOTES.

The Medical Department of Tulane University announces several important news items, the one of foremost consideration being that the Pathologist for the Medical Department has been secured in the person of Dr. Charles W. Duval. Dr. Duval, the newly-elected Professor of Pathology, is quite a young man, but already has attained considerable distinction. Dr. Duval was born at Annapolis, Md., in 1876. He obtained his medical degree from the University of Pennsylvania in 1903. His special training in pathology was obtained not only at the institution from which he graduated, but also in Boston, under Drs. Councilman and Mallory, at the Boston City Hospital, where he was pathological officer. Before leaving Harvard he became First Assistant in Pathology under Dr. Mallory. In addition to the work in Boston, Dr. Duval has worked in the laboratories of the College of Physicians and Surgeons, the laboratories of Johns Hopkins University, the Rockefeller Institute in New York, and, latterly, at the Montreal General Hospital, where he was in charge of the laboratory of Pathology, in addition to holding a teaching position in pathology and histology in McGill University.

Dr. Duval, while yet an under-graduate student, accomplished important work in the discovery of the bacillus of dysentery, and has, also, published original work related to the causes of scarlet fever, besides experimental work in glanders, tuberculosis, cancer, septicemia, etc.

Dr. Duval is distinguished by his membership in the Society of Experimental Biology and Medicine, the American Association of Pathologists and Bacteriologists, the Society of American Bacteriologists, the Boston Society of Medical Sciences.

Dr. Duval assumes his new position and duties about the first of January. The medical profession, and particularly the Faculty of the Medical Department, has expressed satisfaction that this important position has been filled by so distinguished a man, who is, at the same time, a Southerner.

The Medical Department announces the continuance of the special lecture course by Dr. George Dock, Professor of Medicine, whose lectures are open to all the medical profession. Dr. Dock's lectures for December will be as follows:

- Dec. 2, V—GOITRE (*Continued*): Morbid anatomy; clinical features; "goitre heart;" diagnosis; prognosis; treatment.—*Exophthalmic goitre*: Historical; pathology.
- Dec. 9, VI—EXOPHTHALMIC GOITRE (*Continued*): Pathologic anatomy; etiology; clinical features.
- Dec. 16, VII—EXOPHTHALMIC GOITRE (*Concluded*): Complications; varieties; prognosis; diagnosis; treatment.—*Athyreosis and Hypothyreosis*: (Cretinism and myxedema): Historical; endemic; etiology; pathology and pathologic anatomy; clinical features; treatment.

The Medical Department announces that, at the conclusion of Dr. Dock's lectures, there will be a series of lectures in the Course on Hygiene, many of which will be open to the general public who may be interested, as well as the medical profession.

These lectures will include those by Dr. J. H. White, of the Public Health and Marine Hospital Service, on Epidemics; Prof. W. H. Dalrymple, of the Louisiana State University, on Diseases Common to Man and Animals; Dr. C. W. Stiles, of the Marine Hospital Service, on the Hook-Worm Disease; Major George G. Earl, on Sewerage and Water Supply, and Dr. F. Creighton Wellman, of the Division of Entomology of the United States National Museum, on general topics, particularly referring to his recent excursions in West Africa.

Tulane is one of the three colleges in the United States giving such extension lectures, and the only one in which the Medical Department is especially developing the interest of the general profession in college topics.

NEW MEMBERS OF THE BOARD OF ADMINISTRATORS.—The Board of Administrators announces the election of Dr. James H. Dillard and Mr. Alfred Raymond as members of the Board, to succeed Judge E. C. Fenner and Walter D. Denegre, resigned. Dr. Dillard, as Dean in the Academic Department for some years, and familiar with the educational needs of the academic colleges, is an excellent selection. All alumni of Tulane will be additionally pleased in the selection of Mr. Raymond, who has at all times been a zealous member of the Alumni Association, and who for some years served on its Executive Committee. He has been one of the earnest workers for alumnus organization, and it is particularly fitting that his work should be recognized in his selection to serve on the Board of Administrators of the Tulane Educational Fund.

NEW PROFESSOR.—Dr. W. W. Butterworth, at the last meeting

of the Board of Administrators, was elected to the professorship of Pediatrics, on recommendation of the Medical Faculty. Dr. Butterworth has taught a number of years in the Medical Department, and his elevation from the associate professorship on Diseases of Children to a full professorship on this branch is a deserved recognition, and the JOURNAL believes that both the department and Prof. Butterworth are to be congratulated.

PRESIDENT OF AUDUBON SOCIETY.—Professor George E. Beyer was elected President of the Audubon Society of Louisiana at its last regular meeting. This selection is especially appropriate, as Professor Beyer has for so long been identified with the Department of Biology in Tulane, and has developed a creditable museum, where the interests of the Audubon Society have been conserved.

PERSONALS.—Dr. Isadore Dyer, Dean of the Medical Department, and Dr. George Dock, Professor of Medicine, were guests of the Fifth District Medical Society of Texas, meeting at San Antonio on November 20, and of the Harris County Medical Society, meeting at Houston, Texas, on the night of November 21.

Dr. E. B. Craighead, the President of the University, attended the meeting of the Confederation of University Presidents, at Washington, during the week beginning November 16; he also attended a meeting of the Board of the Carnegie Fund, in New York.

Dr. Herbert F. C. Spurrell arrived during the early part of November to take up his work as assistant in the Department of Physiology and Histology under Professor Mann. Dr. Spurrell is a trained laboratory instructor, and his former association with Dr. Mann at the University of Oxford will especially fit him for his work in Tulane.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Keen's Surgery, Vol. III with 562 text illustrations and 10 colored plates.
W. B. Sanders & Co., Philadelphia.

This volume is a magnificent work in itself, as shown by a glance at its contents and the names of the authors, every one of whom is a master in his special line and an authority of international reputation. Any chapter is worth the price of the whole book. To review it in detail would mean simply a repetition of the subjects so exhaustively dealt with and so beautifully illustrated. The work of Cushing on the "Head" is a volume in itself; Andrews, on the "Neck," gives much that is comparatively new to the profession, especially in regard to Crile's methods of operation; Kocher, the greatest living authority on the subject, has contributed to diseases of the thyroid gland. With the names of Harmon Smith, Geo. Emerson Brewer, Jno. M. T. Finney, Edward Owen and Jno. Chalmers Da Costa, all writing in a simple and comprehensive language; Jno. C. Munro, George Gottstein, W. J. & C. H. Mayo, and Moynihan complete the list of contributors. It would be difficult to say which chapter is the most complete. The best of all that is known on these subjects has been carefully compiled and the enormous personal experience of each writer has made it possible to speak authoritatively. The book is a gem of surgical literature and can be criticised only in a most complimentary and favorable way.

E. D. MARTIN.

Laboratory Studies in Tropical Medicine. By C. W. DANIELS, M. B. (Camb.) M. R. C. S. (Eng.) and A. T. STANTON, M. D., (Tor.) M. R. C. S. (Eng.) D. T. M. & H. (Camb.) Second edition P. Blakiston's Son & Co., Philadelphia.

Both authors are of the London School of Tropical Medicine, and this alone is sufficient recommendation. This second edition does not alter, in the least, the character of the first edition. It is thoroughly revised with many new and additional illustrations, but the general idea remains the same, the book is still intended for the lonely worker in his private laboratory.

E. M. D.

Progressive Medicine. March 1, 1908, and June 1, 1908. Lea & Febiger, Philadelphia and New York.

The first volume for 1908 of this great quarterly, edited by so competent a man as Prof. Hare, assisted by H. R. M. Landis, contains a review on the surgery of the head, neck and thorax. Infectious diseases, including acute rheumatism and croupous pneumonia, the diseases of children, rhinology and laryngology, otology.

The contents of second volume are reviews on hernia, surgery of the abdomen, exclusive of hernia, gynecology, diseases of the blood, diathetic and metabolic diseases, diseases of the spleen, thyroid gland, and lymphatic system, ophthalmology and index.

E. M. D.

Introduction to Materia Medica and Pharmacology. By OLIVER T. OSBORN, M. A., M. D., Lea Bros., & Co., Philadelphia.

In 167 pages, the author presents in a condensed form much solid information which is of paramount importance to the medical student.

STORCK.

Practical Physiological Chemistry. By PHILIP B. HAWK, M. S., Ph. D. P. Blakiston's Sons & Co., Philadelphia.

The author has designed this book for use in courses in practical physiological chemistry in schools of medicine and science.

This most excellent book, written by a foremost teacher of this branch, covers the field in a manner surpassed by no work of its kind written by an American.

While not extensive, the chapter on feces gives sufficient information on the subject for the general practitioner. In the chapter on the blood, the author again shows his capacity for condensing much information into a small space.

The book contains two full-page plates of absorption spectra in colors, four additional full-page color plates, and one hundred and twenty-six figures, of which twelve are in colors.

Aside from its text value, it is a fine piece of book-making.

STORCK.

A Text-Book on Uric Acid and Its Congeners. By GEORGE ABNER GILBERT, M. D. The Danbury Printing Company, Danbury, Conn.

While this book contains much information regarding uric acid, we consider it nothing less than a veiled advertisement of the proprietary preparation known as thalion.

STORCK.

Physicians' Manual of the Pharmacopeia, and the National Formulary By C. S. N. HALLBERY, Ph. G. M. D., and J. H. H. SALISBURY, A. M. M. D. American Medical Association.

This little manual is in convenient form for the use of physicians.

STORCK.

A Text Book of Physiological Chemistry for Students of Medicine and Physicians. By CHARLES E. SIMON, B. A., M. D. Third Edition, Thoroughly Revised. Lea Bros. & Co., Philadelphia.

The student and physician who desires to keep abreast of what has been done in this most important branch of medicine, will find this work suited to all requirements. All unnecessary theoretical discussions have been eliminated. As a guide to practical laboratory work this book, like its previous editions, holds a high place.

STORCK.

Manual of Physiological and Clinical Chemistry. Third Edition. Revised and Enlarged. By ELIAS H. BARTLEY, B. S., M. D., Ph. G. P. Blakiston's Son & Co., Philadelphia.

In our previous reviews of this manual, we commented on it favorably. For the present edition, we can only say that it even surpasses those which have gone before.

STORCK.

Diseases of the Breast. By WILLIAM L. RODMAN, M. D., LL. D. P. Blakiston's Son & Co., Philadelphia, 1908.

Rodman, who occupies the chair of surgery in the Medico-Chi College of Philadelphia, offers to the medical profession this valuable work, being a most thorough presentation of the subject in question.

The anatomy and physiology of the breast are first lucidly described by Bonney, of Jefferson Medical College. Illustrations taken from such

standard works as Morris, Testut and others, help to beautify that chapter. Inflammatory diseases of the breast are then considered, followed by articles on Tuberculosis, Syphilis, Actinomycosis and Cysts.

The bulk of the work is devoted especially to Cancer of the breast, which subject is handled in a masterly way. The various theories advanced as to its etiology and nature are impartially discussed, the author citing his own views. The surgical technic for the removal of the malignant breast is well presented along with the numerous plastic methods recommended by Legeu, Minter, Graeve, Dawbarn, Jackson and Tansini. Some of these are profusely illustrated.

LARUE.

General Surgery. Vol. II, 1908. The Year Book Publishers, Chicago.

This excellent little volume, edited by John B. Murphy and Gustavus P. Head, is replete with the ideas and the experience of others, gleaned from the best medical journals published at home and abroad. Murphy's introduction and comments enhance as usual the value of the book, his opinion having such weight in the medical world.

The surgery of the heart, of the blood vessels, of the thyroid, the burning question of cancer are all given an up-to-date expose.

Says Murphy wisely in his masterly Introduction, "The resultant deformities and malpositions in arthritic and peri-arthritic infections are too frequent, considering that they are, in the very large percentage of cases, easily avoidable, through a proper maintenance of the anatomic or best functional conformation during the inflammatory process."

LARUE.

Practical Life Insurance Examinations. By MURRY ELLIOTT RAMSAY, M. D. J. B. Lippincott Co., Philadelphia and London, 1908.

This is a concise work on that very important subject, Life Insurance Examination. The duty of the medical examiner, towards the company he represents, to the applicant for insurance and incidentally to himself, is clearly defined. It will prove profitable reading to the man who wants to do what is right to all concerned.

The attitude of the medical examiner towards the insurance agent, or as the latter is aptly called the primal factor in the great work of insurance, is given deserved consideration.

LARUE.

Heredity. By J. ARTHUR THOMPSON, M. A., Regius Professor of Natural History in the University of Aberdeen. G. P. Putnam's Sons, New York; John Murray, London, 1908.

While the author modestly puts this work forth as an introduction to the study of heredity, one who has had the privilege of reading it must feel at the end that the subject has been well covered in such an introduction. Not only is the matter presented most attractively but it is so readable that the conclusions must be practically accepted as they are presented. Normal, anomalous and morbid hereditary conditions are discussed and these are submitted in relation to animal types in health and disease. Besides, considerable space is given to many theories of heredity and contemplative review is aptly presented of sex heredity and of heredity in its social aspects, broadly interpreted. We cannot express too high an appreciation of this excellent contribution to the study of heredity, which in clearness and beauty of diction, scope of subject and breadth of interpretation, must stand in a class by itself.

DYER.

The Natural History of Cancer, with Special Reference to its Causation and Prevention, by W. ROGER WILLIAMS, F. R. C. S. Wm. Wood & Co., New York, 1908.

A conservative presentation of the modern ideas of cancer. Contains an interesting geographic and historical review of cancer. Chapters

devoted to comparable diseases and conditions in animals and plants; not only interesting, but strong as an argument for what follows in the book.

The author's *credo* is the basis of the main and skeletal part of the work: "My own belief is, that tumors arise from the abnormal play of forces generated within the body * * * changed conditions of existence, of which, in the case of animals, the most important items probably are excess of food, changed environment, and want of proper exercise." "Each cell manifests a certain independence or autonomy."

A full review of all theories of cancer which have been seriously entertained finds place in this book, and fair discussion of each is found. Everywhere the author has tried to make the investigation of all work done in cancer study a matter of record and chronicle.

Aside from the strong appeal for his own views, itself a most valuable contribution to the subject of cancer study, this work must stand high among the references dealing with this all important field. The fair treatment of all other contributors to the theories of cancer must also meet with general approval.

DYER.

The Opsonic Method of Treatment, by R. W. ALLEN, M. B., B. S., (Lond.) P. Blakiston's Son & Co., Philadelphia.

In a small brochure of some 150 pages the author presents a practical study of opsonic method and opsonin theory. There is no pretense to exhaustive discussion, only an argument for the use and purposes of the new theory. In this object the book is a commendable success.

DYER.

Hygiene and Public Health, by LOUIS C. PARKES, M. D., D. P. H., (Univ. of Lond.) and HENRY R. KENWOOD, M. B., (Edin.,) D. P. H., (Lond.) 3d Edition. P. Blakiston's Son & Co., Philadelphia.

In noticing a new edition of this standard text on hygiene we must refer especially to the excellent arrangement of the matter in the text which places sanitation first and the discussion of diseases as dependent and therefore secondary to sanitation in the relation to hygiene and public health. Both authors are teachers of long standing and trained in text book contribution. The revised third edition deserves the continued popularity the text has already enjoyed in previous editions.

DYER.

Diseases of Infancy and Childhood, by LOUIS FISHER, M. D., F. A. Davis Company, Philadelphia.

Nothing has been spared by either author or publisher in making a comprehensive text-book. Practical methods in observation and in treatment are set forth together with the academic consideration of every subject covered in the work. Illustrations are numerous and effective. The laboratory side of milk, feeding, secretions, bacteriology and pathology of pediatrics, all is together so spread in the text as to be easily grasped by the intelligent reader. Over 900 pages are covered in the text dealing with diseases of the various organs, and throughout there is a distinct effort made to have the matter ready to the reader's hand. An excellent reference work for the general practitioner.

DYER.

Borderland Studies. Vol II. By GEORGE M. GOULD, M. D. P. Blakiston's Son & Co., Philadelphia.

It will be good news to many to learn that another volume of Dr. Gould's delightful essays has appeared, compiled from selected articles, editorials and addresses delivered from his pen during the past few years. These are now presented in a small volume handy for the reader.

DYER.

Christian Science. The Faith and Its Founder, by LYMAN P. POWELL. G. P. Putnam's Sons, New York and London.

The vagaries of the Christian Science persuasion as well as the frequently exploited examples of homicidal results from its practice on the sick and injured have been discussed in the periodic literature and more pretentious publications of medical men. It is indeed enlightening, then, to fall upon an exhaustive critique of the faith written by a clerical and from the standpoint of the religion of Christ—in other words, Humanitarianism, which knows no church. The attack on and the review of Christian Science is done without rancor, but rather as a gentle reformer might discuss facts and fallacies in any practice with a view to relieve the benighted of their burdens of false belief. The author's conclusions put forth his motive and his argument in rather clear form: "Truth needs no caretakers. Truth needs only witnesses. But there are in every church good people, simple, honest and devout, who have had little or no training in philosophy or science. It is they whom Christian Science oftenest allures" * * * "until in the white light of publicity the error and evil in it shrivel up and disappear, and it takes its place among the far too many sects which justify themselves by the magic quickening they give to souls untouched by other agencies."

DYER.

Evolution of Wound Treatment. By Sir HECTOR C. CAMERON. James MacLehose & Sons, Glasgow.

This booklet consists of two lectures on the evolution of wound treatment during the last forty years. They were delivered by Sir Cameron, before the Faculty of Physicians and Surgeons of Glasgow, as the "James Watson Lectures." The comparison is clearly made between the pre-Listerian and post-Listerian epochs in surgery, and the book is made all the more interesting by a note by Lord Lister himself regarding the use of the double cyanide of mercury and zinc.

C. C.

Diseases of the Rectum. By W. C. BRINKERHOFF, M. D. Orban Publishing Co. Chicago.

This volume is evidently intended more for prospective patients than for the physician, as it appears to the reviewer to be a brazen method of advertising the author and the method of treating hemorrhoids by injection. Probably the less said the better.

C. C.

Genito-Urinary Diseases and Syphilis. By EDGAR G. BALLENGER, M. D. E. W. Allen & Co. Atlanta Ga.

This is a hand-book prepared mainly for the medical student with the intention of supplying information neither as minute and comprehensive as the large works on the subject nor, on the other hand, omitting many important facts which are not included in smaller manuals. The writer has done his work well and has given the reader the benefit of his valuable experience, as well as his book knowledge on the subject. The work certainly can fill a useful place, although the reviewer must say frankly that notwithstanding the author's intention, there is rather too large a field covered for the size of the book.

C. C.

To Panama and Back. By HENRY T. BYFORD. W. B. Conkey Co., Chicago.

This is an entertaining account of a trip to Panama on the occasion of the Fourth Pan-American Medical Congress. It is well worth reading, both by those who also went to the Congress and those who have never been to Panama. The former will be pleasantly reminded of many things which have interested them and have others shown up in a different, if not new light. The latter will learn a great deal about the Isthmus, though it must be remembered it will be through the colored glasses used by Dr. Byford.

Three points of criticism might be permitted, if frankness be desired on the part of the reviewer. One of them would relate to the pessimistic

note about everything tropical; another about the effort to be funny which lasts through the 384 pages, and sometimes gets a little palling; and still another that the author like others from the same place, has too much tendency to consider Chicago the United States.

Above and beyond all this, the little book is well worth reading and its purchaser can expect to spend several amused half hours if he will read it in that fashion.

C. C.

Medical Gynecology. By HOWARD A. KELLY, A. B., M. D., LL. D., F. R. C. S. (Hon. Edin.) D. Appleton & Co., New York and London, 1908.

The announcement by the publishers of a book on medical gynecology by Dr. Kelly was received by the profession with mingled interest and curiosity. The author's name has been so indelibly linked with surgical technic that few thought it possible that he gave much thought to the prosaic questions of medical features of his specialty. Such an impression will be immediately dispelled by a review of his book, however, for it bears the impress of enormous experience, and above all, a comprehensive study of women's ills from the hygienic and prophylactic standpoint.

The book is presented as an epitome of the experience of a specialist in a field of work, "which should now be returned to the general practitioner since the surgical evolution is now clearly at an end." The first chapter is devoted to the consulting room, history taking, and other general principles of gynecological examination. The second, a most interesting one, deals with the hygiene of infancy and girl-hood, the indirect physiology of fatigue, physical and mental, the effects of food, environment, etc., on the growing girl. This chapter is admirably arranged and is the work of Drs. Lillian Welsh and Mary Sherwood, two authorities whose practical experience in this field has been unlimited.

A chapter deserving special comment is that dealing with constipation, headache, insomnia and obesity. This section could well be placed in the hands of women for personal study.

The functional neuroses met with by gynecologists, viz., hysteria, neurasthenia, hypochondria, etc., are described at length, and this section is of further interest because of Dr. Lewllys Barker's collaboration. His well-known studies along these lines and a detailed statement touching his methods of treatment are presented here for the first time.

Several other well known authorities have contributed sections, among whom may be mentioned Edward J. Ill, on abortion; Morrow, on Syphilis; Dickinson, on Masturbation, and Burrage, on Gonorrhea.

The size and style of the book is uniform with that of the author's well known "*Operative Gynecology*," it is illustrated by the same artists and is another example of the latest and highest type of modern book-making.

MILLER.

Practical Gynecology. A Comprehensive Text-Book for Students and Physicians. By E. E. MONTGOMERY, M. D., LL. D., Prof. Gynecology, Jefferson Medical College. Third Edition. Pages 970, with 574 Illustrations. P. Blakiston's Son & Company, Philadelphia, 1907.

The first edition of Dr. Montgomery's well known text-book was published in 1900. It has now reached the third edition and appears with the subjects of microscopic diagnosis, gynecological bacteriology and the pathology of carcinoma entirely rewritten and chapters added on etiology and blood examinations.

It is necessary to keep clearly in mind that the author intends the book to be "practical." The sections on diagnosis and treatment are most comprehensive. Little space is given to debatable questions. The author's views on such subjects are based on a large personal experience and may be generally accepted as sound practice.

The value of illustrations seems to be fully appreciated by the author. The greater part of the 574 illustrations were drawn and specially engraved for the text. The practitioner will find it a valuable reference book.

MILLER.

A Text-Book of Diseases of Women. By J. C. WEBSTER, B. A., M. D., F. R. C. P. (Edin.) W. B. Saunders Co., Philadelphia, 1907.

The first feature to be noted is the original and convenient classification. It was but natural to find unusual prominence given to the scientific basis of each subject, because of the author's researches in anatomy, histology, embryology and pathology. Probably no text-book published gives so much space to the careful description of the anatomy of the female organs. Eighty-two carefully selected illustrations are included in this chapter.

In the preface the author states that he has endeavored to keep constantly before him the following aims:

- "1. To give prominence to the scientific basis of each subject under consideration;
- "2. To study clinical phenomena in their evident relationships;
- "3. To insist upon exercising caution in the adoption of therapeutic measures not yet thoroughly tested;
- "4. To give emphasis to methods which have proved satisfactory in his own experience."

The author's familiarity with the literature, his well known ability as a pathologist and teacher, and his original classification, makes the book a most valuable one, and furthermore, a pleasure to read.

MILLER.

Biographic Clinics. Vols. IV and V. GOULD. P. Blakiston's Son & Co., Philadelphia.

In these volumes Dr. Gould continues his researches into the pathology of distinguished men from his favorite etiological viewpoint of eye strain. None can deny that they are bright and interesting, doubtless some of the notable subjects owed their woes unnumbered to complicated errors of refraction improperly or not at all corrected; but even these literary post-mortem examinations cannot convince us beyond the peradventure of doubt that this was in all cases the sole font and origin. "What song the Syrens sang, or what name Achilles assumed when he hid himself among women, though puzzling questions are not beyond all conjecture," yet modern medicine demands something more than a conjecture, be it ever so ingenious.

H. D. B.

The Muscles of the Eye. By LUCIEN HOWE, A. M., M. D. G. P. Putnam's Sons, New York and London, 1907.

This is a notable work, belonging in a far different class from the made-to-order text-books, or compiled monographs, with which the popular and pleasing task of making books from other men's brains overloads the groaning presses. Dr. Howe's work bears on its face the evidence of an appalling labor. In his first large volume he reviews and corrects the statements and views upon the anatomy and physiology of the muscles of the eye ball, as the result, evidently, of numerous dissections and experiments of his own. In a second equally large volume he applies the results of these studies to the elucidation of the diagnosis and correction of the balance of the ocular muscles. The two volumes constitute a work of which our American faculty may be justly proud, and while far beyond the scope of such a book notice as this, it is one with which every practitioner of ophthalmology must make himself familiar.

H. D. B.

Publications Received.

LEA & FEBIGER, Philadelphia and New York, 1908.

Diseases and Surgery of the Genito-Urinary System, by Francis S. Watson, M. D., assisted by John H. Cunningham, Jr., M. D. Volume I: *The External Genitals, the Prostate and the Bladder*. Volume II: *The Kidneys and Ureters*.

Applied Surgical Anatomy, by Geo. Woolsey, A. B., M. D. (Second Edition).

Manual of Diseases of the Nose and Throat, by Cornelius Godfrey Coakley, A. M., M. D. (Fourth Edition).

C. V. MOSBY COMPANY, St. Louis, Mo., 1908.

Diseases of the Skin, by A. H. Ohmann-Dumesnil, A. M., M. E., M. D., Ph. D. (Third Edition).

WM. WOOD & COMPANY, New York, 1908.

General Pathology, by Ernest Ziegler; translated from the Eleventh Revised German Edition, by Gustav Fischer, Jena, 1905; Edited and Brought up to date, by Alfred Scott Warthin, Ph. D., M. D.

REBMAN COMPANY, New York, 1908.

Intestinal Auto-Intoxication, by A. Combe, M. D., Albert Fournier, M. D.; Wm. Gaynn States, M. D.

W. B. SAUNDERS COMPANY, Philadelphia, and London, 1908.

Gynecology and Abdominal Surgery, edited by Howard A. Kelly, M. D., F. R. C. S., (Hon. Edin.) and Chas. P. Noble, M. D., S. D.

Diseases of the Skin and Eruptive Fevers, by J. Frank Schamberg, A. B., M. D.

P. BLAKISTON'S SON & COMPANY, Philadelphia, 1908.

Therapeutics of the Circulation, by Lauder Brunton, M. D.

Clinical Bacteriology and Haematology for Practitioners, by W. D'Este Emery, M. D., B. Sc., (Third Edition).

Emergency Surgery for the General Practitioner, by John W. Sluss, A. M., M. D.

Military Hygiene, A Manual of Sanitation for Soldiers, by R. H. Firth, R. A., M. C.

Diseases of the Nervous System, by Alfred Gordon, A. M., M. D.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1908.

A Manual of Obstetrical Technique as Applied to Private Practice, with a Chapter on Abortion, Premature Labor and Curettage, by Jos. Brown Cook, M. D.

International Clinics, Volume III. (Eighteenth Edition), by Leading Members of the Medical Profession Throughout the World.

MISCELLANEOUS:

Principles of Surgery, by Stuart McGuire, M. D., (Southern Medical Publishing Co.).

Report of New York Eye and Ear Infirmary. (Volume XIII., July, 1908).

Fortieth Annual Report of the Sec. of State on the Registration of Births, Deaths, Marriages and Divorces in Michigan for the year 1906. (Geo. A. Prescott, Sec. of State).

Tuberculosis in the United States, (Bureau of the Census, S. N. D. North, Director. (Department of Commerce and Labor, Wahsington, D. C., 1908).

The Broader Aims of the Council on Pharmacy and Chemistry, of the A. M. A., (Torald Sollmann, M. D., Chicago, 1908).

Folia Therapeutica, (Edited by A. Baginsky, M. D., Berlin; J. Snowman, M. D., London.) Published by John Bale, Sons & Danielsson, Ltd., London).

A Winter Cruise to the Orient, by Casey Wood, M. D., Chicago.

Colorado Souvenir Book for the International Congress on Tuberculosis, published by the Colorado State Organization, 1908. (Edited by Wm. N. Beggs, A. B., M. D.)

The Sanitary Cement Block House, by Chas. Denison, A. M., M. D. Denver, Col.

Index Catalogue of the Library of the Surgeon-General's Office, U. S. Army, (2nd Series, Volume XIII. Periodicity-Prussia.) (Gov. Printing Office, Washington, D. C., 1908).

Reprints.

The Preventive Treatment of Transferred Ophthalmitis; A Canalicus Dilator for the Local Treatment Stillicidium; The Value of Systematic Bacteriologic and Microscopic Study in the Treatment of Gonococcal Conjunctivitis; Evisceration of an Eyeball by a Single Mass of Heated Metal; A Rare Type of Perivasculitis Retinae in a Young Woman; The Subject of Inherited Syphilis. By Chas. A. Oliver, A. M., M. D., Philadelphia.

Irremovable Cancer, by Wm. Seaman Bainbridge, ScD., M. D.

The Deterioration and Commercial Preservation of Flesh Foods, by W. D. Richardson and Erwin Scherubel.

Some Modern Methods for the Clinical Examination of Urine and Gastric Juices, by C. F. R. Weiss, M. A., Ph. D., F. C. S., M. P. S.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR OCTOBER, 1908.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	10	3	13
Intermittent Fever (Malarial Cachexia)	5	1	6
Smallpox.....			
Measles			
Scarlet Fever.....	1		1
Whooping Cough.....	1		1
Diphtheria and Croup.....	9		9
Influenza	1		1
Cholera Nostras.....			
Pyemia and Septicemia	4		4
Tuberculosis.....	49	49	98
Cancer.....	18	5	23
Rheumatism and Gout	1	1	2
Diabetes	1		1
Alcoholism	3	1	4
Encephalitis and Meningitis.....	3	2	5
Locomotor Ataxia.....	2		2
Congestion, Hemorrhage and Softening of Brain.....	17	9	26
Paralysis	2	3	5
Convulsions of Infants	3	1	4
Other Diseases of Infancy	25	9	34
Tetanus.....	1	6	7
Other Nervous Diseases	2		2
Heart Diseases.....	46	45	91
Bronchitis	4	3	7
Pneumonia and Broncho-Pneumonia.....	16	15	31
Other Respiratory Diseases.....	1	1	2
Ulcer of Stomach.....			
Other Diseases of the Stomach	4	4	8
Diarrhea, Dysentery and Enteritis.....	28	16	44
Hernia, Intestinal Obstruction.....	2		2
Cirrhosis of Liver.....	17	7	24
Other Diseases of the Liver	3	2	5
Simple Peritonitis		2	2
Appendicitis	6	2	8
Bright's Disease	29	25	54
Other Genito-Urinary Diseases.....	8	1	9
Puerperal Diseases	9	5	14
Senile Debility.....	14	7	21
Suicide	2		2
Injuries.....	18	11	29
All Other Causes.....	9	7	16
TOTAL.....	374	243	617

Still-born Children—White, 42; colored, 27; total, 69.

Population of City (estimated)—White, 258,000; colored, 93,000: total, 351,000.

Death Rate per 1000 per annum for Month—White, 17.39; colored, 31.35; total, 21.09.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.08
Mean temperature 68.
Total precipitation 0.78 inches.
Prevailing direction of wind, northeast.

New Orleans Medical and Surgical Journal.

VOL. LXI.

JANUARY, 1909.

No. 7

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Malarial Blindness; With A Report of Six Cases.*

By DR. T. S. DAVIS, Blooming Grove, Texas.

Text books on diseases of the eye as a rule dismiss the subject of malarial eye affections in a few words.

When we consider the large amount of space often devoted in these works to diseases and congenital defects of excessive rarity—to the curiosities of ophthalmology, so to speak, the absence of detailed reference to malaria becomes astounding. Possibly this is on account of a natural hesitancy to report or describe as malarial, eye affections in which no blood examination has been made; possibly it is because the observers have not looked upon malaria as the exciting cause.

Yarr, writing in the *British Medical Journal*, states that tropical practitioners are continually on the watch for ocular manifestations which experience has taught them are characteristic of

* Graduation Thesis. Medical Department, Tulane University of Louisiana, Class of 1908.

malaria, cases "with characteristic symptoms, characteristic ophthalmoscopic symptoms and above all, characteristic pathology."

According to L. Raynaud, in whose thesis the entire literature upon this subject has been reviewed, Moraud was the first to draw attention to this subject.

In the year 1838, Storch described an amaurotic latent; in 1868, Jacobi described a non-intermittent malarial amaurosis due to an optic neuritis, and since that time numerous observations have been made by Sulzer, De Schweinitz and others.

The blindness produced by malarial intoxication varies as to duration from a transient loss of vision to permanent blindness. It may involve one eye or both eyes, and include one half of the visual field or the whole field. In a few cases reported there was a contraction of the visual field. In some cases the blindness occurs with the first chill, in others with the second, third, fourth, and one case is reported in which the blindness recurred with the chill on the twenty-first day.

ETIOLOGY.—The etiology of this affection is primarily that of malaria in general. In considering the varieties of the malarial plasmodium in regard to this special manifestation of malaria, we find that in all the cases so far reported, in which a blood examination was made, the estivo-autumnal was the one found and clinically the tertian form of this plasmodium was the one most often seen. When the quotidian form is present and the attacks come on during the evening hours, the affection acquires an extraordinary resemblance to night blindness and some writers have accordingly described a form of night blindness due to an intermittent fever. Stober relates an interesting case of this kind, in which there first appeared night blindness and then after several days an attack occurred in full daylight, causing a complete bilateral amaurosis, which was cured after a few days by quinin. According to Yarr, malarial eye lesions, which produce blindness, all originate in circulatory troubles. They may be classified under the following heads:

OPTIC NEURITIS.—Jacobi was the first to describe this condition. He stated that it had the appearance of a choked disc and that the visual acuteness of both eyes was much reduced, but the visual field preserved its normal limits.

The continued use of quinin caused a disappearance of the subjective and objective troubles in four weeks.

A similar observation has been published by MacNamara, who asserted that cases of this kind are encountered rather frequently among the natives of Calcutta; Chiarini, who was chief of clinic of eye diseases at the University of Rome, had the opportunity to see several such cases, one of which came to autopsy. This patient, after having suffered several attacks of malarial fever, was suddenly taken with bilateral amaurosis while the fever had disappeared. An early ophthalmoscopic examination showed an incipient optic neuritis. For two days the patient complained of nothing except the blindness, then he began to be feverish again, with motor and sensory paralytic symptoms and patient passed into a state of coma and died with a temperature of 106°F.

Ophthalmoscopic examination of the eye on the day before death showed that the optic neuritis had progressed. At autopsy evidences of an existing malarial affection were found.

The capillaries of the brain were found to contain a certain number of red blood cells containing the malarial parasites with central pigment. There was a round celled infiltration in the connective tissue framework of the optic nerve which was progressively more marked the nearer the nerve approached the retina. The capillaries and veins of the retina were distended and filled with blood. In the chorio-capillaries, phagocytes were found containing melanotic pigment. Chiarini was not able to find the plasmodium in either the retinal or choroidal capillaries, but lately Gaurneri has been able to demonstrate them in similar cases, all in an advanced stage of their vital cycle.

The variation in the visual acuity, which is found in this form, constitutes the characteristic symptom and distinguishes malarial neuritis from all other forms.

A diminution of the visual acuity to one-tenth can rise in two or three weeks to one-half or two-thirds, falling again perhaps in two or three days.

The color perception remains unimpaired, except in rare cases, ending in complete atrophy. The fields are, as a rule, intact or, at most, only slightly contracted. The fundus changes, visible with the ophthalmoscope, include swelling of the papilla, which assumes a reddish grey color, edema of the circumpapillary retina

with effacement of the papillary margins, and enlarged and tortuous veins. The peculiar coloration of the papilla, called a "greyish red tint," due to parasites in its capillaries, is pathognomonic. In about one-third of the cases tiny peripheral hemorrhages are also found. About eighty per cent. of cases terminate in a partial atrophy, indicated by varying diminution of visual acuity, irregular contraction of the field, and slight greyiness of the disc; many end in apparently complete recovery; and some rare cases go on to complete atrophy.

For our knowledge of the pathology of malarial optic neuritis, we are mainly, if not entirely, indebted to Poncet, who shows conclusively that the changes in the disc and retina are due primarily to melanemia with increased vascularization, the subsequent atrophy or partial atrophy being explained by consecutive endarteritis of the vessels. The neuritis is always binocular, although it does not usually begin in both eyes at the same time.

RETINAL HEMORRHAGES.—Two varieties of retinal apoplexy are found in association with malaria;

(1) *Minute Peripheral Hemorrhages*.—These occur in the ciliary zone of the retina, and are frequent in acute attacks of malaria; they are often so minute and so far forward as to be easily overlooked. Poncet found them in all cases of death from malaria. They may accompany or follow neuritis, but often form the only apparent lesion of the fundus.

This form of retinal hemorrhage constitutes that class of cases of malarial blindness called "Sine Materia" by some authors.

(2) *Large Peripapillary and Macular Hemorrhages*.—These hemorrhages are much less frequent, and like the neuritis which they sometimes accompany, are usually seen only in the malarial cachectics. They are of very much graver import, however, always causing some impairment of vision and occasionally absolute loss of the visual function. It is this form of hemorrhage which probably causes the "sudden and persistent amaurosis," described by some writers on malaria. A microscopic examination shows that these retinal apoplexies in malaria are due to infarcts of parasites followed by extravasations.

HEMORRHAGE INTO THE VITREOUS.—Hemorrhage into the vitreous as the result of a single paroxysm was first reported by Kries. Later on Bull wrote upon the subject and gave a report of seventeen cases.

The majority of all cases of hemorrhage into the vitreous so far reported were unilateral and practically all the patients were over 40 years of age.

The patient is very frequently left with floating opacities even if the primary condition clears up. The symptoms do not vary essentially from hemorrhage produced by other causes.

EFFUSION INTO THE VITREOUS.—This rare and curious affection was first described by Seely, who thought that there was an infiltration of serum.

It ordinarily forms in stages and causes almost complete loss of vision for a time. There is observed a very characteristic white reflex by reflected light and in the two cases reported by Seely the progress of the disease was oscillating for several months; eventually the visual acuity became normal under prolonged quinin administration, but in one case mobile opacities persisted.

RETINO-CHOROIDITIS.—Poncet, who was the first to study the pathological anatomy of the ocular changes due to malaria, has described a retino choroiditis occurring with both acute and chronic malaria.

On ophthalmoscopic examination we find a venous congestion accompanied by a peripapillary retinal edema and by a slight prominence of the optic disc, which here takes on a pinkish grey tint in its central portion.

On microscopical examination of the retina of patients who die from malaria in which this form of eye disease is manifested, few and slight changes are found in the retinal vessels.

In some capillaries the endothelial cells may be found to be swollen, with prominent nuclei and with very fine pigment granules in the protoplasm.

Degenerative or necrobiotic alterations are very rarely found.

In the choroid nearly all the vessels are found full of large leucocytes, with vesicular nuclei; rich in pigment, in granules of hemoglobin, and in red corpuscles containing the plasmodia. The distribution of the amebæ containing red blood cells in the retinal vessels is according to definite laws. The capillaries contain red blood cells with the plasmodia in an advanced stage of their vital cycle; in the other large vessels the red globules with the adult parasites occupy the peripheral portion of the blood, just as Marchiafava and Bignami have described as occurring in other viscera.

SYMPTOMS.—The symptoms are those of ordinary malaria to which is added the blindness.

In some cases the blindness is the only thing that attracts the patient's attention, and he appears perfectly at ease, although the temperature may be very high. In cases in which there is complete amaurosis, the pupils of the eye are widely dilated and show no response to either light or accommodation, but as the vision begins to return these appear. It matters not how much quinin may have been given before the blindness appeared, the patient will show no signs of cinchonism whatever.

REPORT OF CASES.—In the report of these six cases, I am indebted to my proceptor, Dr. J. A. Greene, for the notes on the first four cases. These four cases occurred before either the ophthalmoscope or the microscope had come into general use, and blood and ocular examinations were not made.

CASE No. I.—A. B., white, male, 36 years of age, county sheriff. Family history negative. Personal history, had the usual diseases of childhood. Had always been in good health except for several attacks of malaria, the last one of which occurred about one year previous to present attack. No history of syphilis or gonorrhea.

Present Illness: Patient took sick with distinct chill about ten o'clock in the morning, and temperature rose rapidly to 104°F. The high temperature was controlled by hydrotherapy. He was given ten grains of calomel every two hours until three doses had been taken, which caused him to have several movements from the bowels. He was put upon twenty grains of quinin in capsules every three hours, and this was continued until 12 p. m., as the temperature was controlled with great difficulty.

The following day the patient rested very well. The temperature came down almost to normal, and bowels moved twice from calomel. The quinin was begun at 12 p. m. on the day following the chill, and patient was given 10 grains in capsules every 3 hours, but just before 10 o'clock the following morning, the patient had another chill which was not so severe as the first, but he began to complain of total blindness in both eyes.

In a few hours his temperature rose to 105½°F., and two other physicians were called into consultation, and it was decided that the blindness must be due to quinin. The quinin was stopped and the temperature was controlled by hydrotherapy with great dif-

ficulty. The following day the condition was practically the same, except that there was a slight return of vision. Up to this time both pupils had been widely dilated, and there was no response to either light or accommodation, but now some reaction could be made out. On the following day, which was chill day, the patient complained of feeling cold about 9 o'clock, and by 10 o'clock was entirely blind again. The temperature soon rose to 107°F., and patient died in convulsions. At no time did this patient show signs of cinchonism.

CASE No. II.—Jane Y, female, age 23, school teacher. Family history negative; personal history negative except as to malaria. The patient having had several chills about two months before.

The patient had practically the same history as Case I, except that no blindness was complained of until the fourth chill, when there occurred total loss of vision after a slight rigor. The quinin which had been given up to this time was stopped. On the following day there was a return of vision to almost normal. The chill recurred the day following, and was again associated with blindness, very high temperature followed and death resulted from convulsions. No symptoms of cinchonism were ever shown.

CASE No. III.—Practically the same history as the other two except that the chill occurred at 3 a. m. Each time the chill occurred the temperature would fall to 96°F., and was followed by a rise in temperature to 100-101°F. until the fourth chill, when the blindness occurred which was discovered at daylight.

The blindness continued until the next chill morning, when at 2 a. m. the temperature fell to 95°F., and rose to 107°F., and was associated with convulsions and death. The patient did not show any symptoms of cinchonism, although he had received a brisk calomel purge and the quinin was given in solution in ten grain doses every 3 hours up to the time that the blindness had appeared.

CASE IV.—Edith D., female, age 14. Family history negative. Personal history negative, except that she had an attack of malaria one year previously.

Practically the same history as the first two, except that the blindness occurred with the first chill. Since the blindness came on without the patient having previously taken any quinin, the physician concluded that the blindness was not produced by quinin

and it was decided to give it hypodermically. The sulphate of quinin was brought into solution with dilute sulphuric acid and 10 grain doses were given by needle every 4 hours for 4 doses before chill time on 3 successive days. Under this treatment there was a complete return of vision. The patient was put upon arsenic three times daily, and directed to take quinin on the 7th, 14th, 21st and 28th days. Nearly all the places where the quinin was injected broke down into abscesses.

The patient having failed to carry out the directions,—on the 21st day there was a recurrence of the chill and blindness which was treated as before. The patient had an uneventful recovery except that there was never a return of the full visual power. She was sent to an oculist who made a diagnosis of partial atrophy of the optic nerve.

CASE V.—Eric D., female, age 24, housekeeper. Family history negative. Personal history negative. No previous malarial attacks.

Present Illness: This began on Sunday morning with a very slight rigor, in fact, the patient complained so slightly that a physician was not called until rather late in the afternoon. At this time she had a temperature of 105°F., pulse 120, and respiration 22.

This patient had a convergent squint which had been present since childhood.

The temperature was controlled by hydrotherapy and she was given a brisk calomel purge followed by 8 grains of quinin every 4 hours, brought into solution with aromatic sulphuric acid. On account of the fever showing a tendency to run high the quinin was continued every 4 hours through Sunday night. On Monday the condition remained about the same, except that the temperature did not go above 103°F. The bowels had moved several times and she had vomited some greenish colored fluid. The quinin solution was stopped during the day, but was begun again at 9 p. m. Monday night. A dose of 8 grains was given every 3 hours all through the night. The patient vomited a few times, but a dose of the quinin would be repeated each time the patient vomited it.

On Tuesday morning at about the same time that the rigor had occurred on Sunday morning, the patient had a very hard chill and in a few minutes complained of being unable to see. A very careful physical examination was made, and nothing abnormal

could be detected except the widely dilated pupils which failed to respond to either light or accommodation. The convergent squint had now entirely disappeared. After the chill had passed off, the patient complained of nothing except the blindness, even after very careful inquiry. Ophthalmoscopic examination revealed an optic disc which was very prominent and which had a reddish gray tint in its center. The veins stood out rather prominently and around the papilla there were evidences of an edema.

The microscopical examination of the blood drawn the day previous, and that drawn late Tuesday evening, showed the presence of rather large numbers of the estivo autumnal parasite.

The temperature reached 105.5°F., which was lowered by applications of cold water. The quinin was not given after chill on Tuesday morning until 9 p. m., the same evening when 10 grains were given by needle and this amount repeated every 3 hours. This helped to control the temperature and caused it to fall to 101°F., where it remained all night. On Wednesday morning there was a sufficient return of vision to enable the patient to distinguish daylight from darkness. The pupils now showed some slight response to light, and the ophthalmoscope presented practically the same condition as the day previous.

The temperature remained about 100°F throughout the day.

The quinin was given on Wednesday night at the same intervals and in the same amount as on the night previous. On Thursday morning there was almost complete return of vision, and also of the pupillary reflexes. The convergent squint returned at the same time as the vision. The fundus appeared practically normal except for the pigmentation. The patient continued to have a slight rise in temperature every day to 99.5°F., but upon being given arsenic and quinin this rise ceased to appear after the 7th day, and patient made an uneventful recovery.

CASE VI.—Lucile B., female, age 10. Family history negative. Personal history negative. No history of previous attacks of malaria.

In this case blindness also occurred with the second chill, but did not persist but 2 hours. The blood examination showed the presence of the estivo autumnal parasite. No lesion whatever could be made out with the ophthalmoscope, probably on account of the poor light. There were given only four hypodermic injec-

tions of quinin in this case, one injection 5 hours and the other 2 hours before the expected chill for 2 days in succession. This was successful and no further chills appeared. The patient made a complete recovery.

DIAGNOSIS.—The diagnosis of malarial amaurosis ought not to present any difficulty since malaria can hardly be mistaken for any other malady where proper examinations of the blood are made. In certain cases, however, there might arise a doubt whether the amaurosis was due to malarial infection or to quinin poisoning; and the need of a speedy diagnosis is of the utmost importance here, since in one case a cure would be quickly obtained by pushing the quinin, and in the other such a course would only aggravate the trouble. In doubtful cases of this nature the ophthalmoscope must always decide the question. The ophthalmoscopic picture in cases of quinin amaurosis is most characteristic. There are signs of a grave ischemia of the retina and optic nerve. The arteries and veins are extremely contracted, and all traces of them are often lost at a short distance from the papilla. The optic disc is from the first of a pearly whiteness, as in cases of atrophy of the optic nerve, and its contour is very distinct.

There are no traces of retinal hemorrhages. Very different are the cases in the fundus, as seen through the ophthalmoscope in cases of malarial amaurosis. There we find hyperemia, papillary edema, optic neuritis and retinal hemorrhage or arteritis which gives a picture wholly unlike that of quinin amaurosis. Sometimes, it is true, there is a narrowing of the retinal vessels, but this is of short duration, or when permanent is limited to the arteries alone, and never occurs in the veins which are more or less dilated.

In its subsequent course, also, malarial amaurosis differs greatly from the quinin affection. The former is almost always of brief duration, and often terminates in complete recovery, but may result in total blindness through atrophy of the optic nerve. Quinin amaurosis, on the other hand, is of much longer duration, but is of better progress, for when even complete amaurosis has lasted for several months the patient, under appropriate treatment, will usually regain a fairly accurate central vision.

The visual field, however, and this is another characteristic of quinin amaurosis, is concentrically narrowed, sometimes to such a degree that patients whose field of vision may be sufficiently

broad to permit of reading and writing can not go out alone. Another characteristic of quinin amaurosis is that, even when the patient has regained a fairly good amount of vision the ophthalmoscopic signs persist almost unchanged, and the atrophy of the optic nerve contrasts strongly with the relatively good condition of the sight.

TREATMENT.—The treatment of malarial blindness resolves itself into that of malaria in general, but it seems best to give the quinin by needle, as in these cases very little absorption takes place from the gastro intestinal tract.

GENERAL CONCLUSIONS.—The estivo autumnal parasite is the one which produces malarial blindness, and its tertian form is the one most frequently present. It is not necessary for the malarial cachexia to exist for the blindness to occur.

The blindness may be transient and disappear as the fever goes down or it may become permanent through atrophy of the optic nerve. The blindness may be produced by either an optic neuritis, retinal hemorrhage, hemorrhage into the vitreous, effusion into the vitreous or by a retino choroiditis.

The diagnosis is rapidly made by blood examination and by the ophthalmoscope.

It is readily differentiated from quinin amaurosis by the fact that in the latter there is grave ischemia while in the malarial affection there is great congestion of the papilla. The prognosis is good and quinin is best given by needle.

Low Tracheotomy for Foreign Bodies in the Trachea and Esophageal Conditions Resembling Tracheal Obstruction.

By DR. J. D. BLOOM, New Orleans.

The history of cases in which this accident had occurred, the phenomenal tolerance of the tract to the wedging effect of foreign bodies that were sufficient in size to have practically occluded the diameter of the tracheal tube and the inhibiting influence of a practised resistance to the spasmodic effort of expulsion that the patients became schooled in, markedly typifies in symptoms almost every case that I have to describe.

Indeed, but for the spasmodic efforts that are occasioned by ex-

ertion, respiratory activity, or deglutition, the apparent peaceful expression that the patients wore might deceive. The fixity of the ordinary and extraordinary muscles of respiration lends a suspicion that history and respiratory spasms strengthen and corroborate.

The low procedure effects a speedy relief by tracheal effort in the delivery of the foreign substance, lessens respiratory effort, and has a better cosmetic effect, though it is to be done with a consciousness of the anatomical structures to be avoided and a blunt dissection that is essential to the lessening of harm. Whilst the warming effect on the inspired air of the high operation is measurably true, the respiratory activity in reserve that is brought into action by this condition with its compensatory and associate congestion of the respiratory tree, adds the temperature necessities that might otherwise be lacking. In truth, I have never seen in these conditions the need of this thought being entertained.

Of the X-Rays in metallic substances, it strengthens and indeed confirms the diagnosis, but in vegetable substances, such as, coffee beans, white peas, and rubber whistles, as well as stones, the object is not definitely determined and collateral facts have to be taken into consideration.

I can recall an instance in a child, a relative of a professional friend, upon whom I did a previous tracheotomy for laryngeal diphtheria, in which a granuloma on the mucous membrane side of the tracheal incision formed days after the tube's removal, precipitating a reinsertion under great haste to offset the effect of a hygroscopic enlarging of this growth. This tracheal occlusion seemed occasioned by the introduction of a foreign body. Mention of this is made to show the discretion to be used in expressing opinions and the essential need of having symptoms indicate the procedure.

Bearing the skin wound downward to the trachea, a hook for securing its fixity, the blunted flattened handle of a scalpel will provision a cautious dissection of the neck tissues, pushing downward those tissues below the wound, and thereby lessening the prospect of injuring the innominate vein. Tracheal retractors, curved and fenestrated, of size adapted, facilitate the further efforts.

The introduction of curved, serrated forceps for catching, in either bronchus, the foreign body is essential in most instances

either for the purpose of dislodging it, or to provoke expulsive respiratory efforts that bring it in the opening. It is an excellent provision to place a small sized tracheotomy tube in the tracheal wound after cleansing the tracheal mucous membrane with small sponges wrung out in warm salt solution, though I have done without this in some cases with good results, but in one I had the condition of general emphysema produced that recovered after the introduction of a tube; this has decided me upon the above precaution.

The esophageal conditions resembling each other in symptomatology were one in which a young man had swallowed a silver dollar and the muscular effort and spasm caused thereby had forced it partly into the esophagus, making anterior pressure upon the trachea and larynx as in direct partial occlusion of the tracheal lumen. Another, a child of four years, in which an iron jackstone had occupied a similar position with the same symptomatology. I removed both through the pharynx.

One evening a man came to me. He was breathing with difficulty, talked spasmodically in whispers, and very evidently was suffering from respiratory distress; spasmodic cough was absent. I reasoned for esophageal anterior pressure and with the aid of a coin lifter and the long armed forceps removed from his esophagus a chicken bone with meat adhering, the size of which was remarkable.

Another case in which a young man after having partaken of an excess of alcoholic stimulation, returned to his home and in the stupor that followed swallowed a set of false teeth from his anterior upper jaw, which lodged near the tracheal bifurcation in the esophagus. I did not see him until the following morning, at which time very evident tracheal pressure evinced itself in addition to esophageal distress and an explanation from his wife told the nature of the trouble. This patient died suddenly about four days after I removed this set of teeth, from some possible sloughing process, the character of which I could not determine.

The following may be of additional interest in that the granulations formed were abundant:

A child three years old was brought to me August 10, 1900, at 3 p. m., by her mother, who stated that the child had swallowed a baby whistle two and one-half months previous to this; and the

only inconvenience she suffered was she could not swallow any solid food, but could take liquids. Her general health remained good. The foreign body was located by the X-Rays, and found lodged in lower third of esophagus. I extracted it at once, during anesthesia. It was necessary to dilate the canal to break down a mass of granulation tissue in which the foreign body was found embedded. Considerable guarded traction was required to remove it.

Returned to bed after operation at 4:30 p. m. in very good condition, temperature 100 F., 120 R. 32. Ice cap applied over region of esophagus.

At 7 p. m. small quantity of crushed ice was given. Nourishment, iced milk commenced at 10:30, no nausea or vomiting. Child grew very restless during night, temperature ranged from 100.8-104, reduced by sponging. Bromide, gr. viii were given for three doses when the desired effect was obtained. Stimulation by digitalis, gtts. ii, every four hours.

August 11, temperature high and persistent all day; reduced by baths; pulse and respiration frequent, breathing harsh.

In a few hours ice cap was applied to chest, there was a marked improvement in temperature, the pulse rate and respiration were reduced in frequency.

August 13, temperature did not exceed 100.2° ice cap was discontinued from chest. Child convalesced rapidly. No nourishment given during illness, but iced milk. Discharged August 15.

Another case of interest was a child of three years I saw May 25, 1901. The child had a severe paroxysm of coughing April 27, 1901, supposed to have been caused by swallowing a tack; as child recovered and seemed as bright and playful as usual, the history of the tack was not considered a reliable one. There was a rise of temperature the next evening, April 28, with slight bronchitis, which later on developed into pneumonia for which she was treated four weeks.

Last two weeks of illness child had frequent paroxysms of coughing, which grew more severe, some of the paroxysms lasting for two hours toward end of illness, and more aggravated in early morning.

The history of the tack was reconsidered and child brought to me May 25. By X-Ray tack was located in right bronchus. I did

a low tracheotomy and removed the tack which was found very much corroded and embedded in pus. Bronchus cleansed out with saline solution, wound closed.

Was put to bed at 6 p. m.; temperature was 103° , which was reduced by applying ice cap to head.

Stimulated by strychnin, gr. $1/150$, and digitalis, gtts. ii, by needle. Bromide, grs. viiss, chloral gr. i, were given every three hours and discontinued May 27. Wound dressed same day. Colodion dressing applied. The child made a rapid recovery and May 29 was discharged cured.

I saw on February 22, 1903, a child, aged twenty months, with the following history:

On the evening of February 18, this baby girl swallowed a coffee bean which lodged in the trachea. Following the accident, she suffered from dyspnea, which was so severe that it was impossible for her to lie down.

She developed fever shortly afterward, and for these symptoms was treated for pneumonia by a country physician.

Her father brought her to the city on the 22d, the X-Ray failed to reveal any foreign body in the chest cavity. I did a low tracheotomy, and found the bean embedded in pus in the right bronchus. It was caught with a pair of forceps, removed and a tracheotomy tube inserted.

After the operation, her temperature rose to 103.5° , which was easily reduced by a small dose of acetamidid.

The tube was retained in the trachea for forty-eight hours following its insertion, during which time dyspnea was marked, and fever between 100° and 101.5° was present.

After removal of the tube, the dyspnea improved and fever subsided. A few doses of ammonium carbonate were given for the bronchitis that existed, which cleared up rapidly.

The opening in the trachea closed in 24 hours after removal of the tube. Her convalescence was rapid and she left on the third of March in fine condition, the external wound being almost healed.

Another child I saw on June 6, 1901, aged three years, with the history of having swallowed a grain of coffee three weeks before, and had frequent paroxysms of coughing always more aggravated in the early morning.

One week previous to his visit to me, complained a great deal of

throat; paroxysms more severe, child would lose his breath and become completely exhausted after each attack. He was brought to the city June 6. The X-Ray failed to locate the grain.

I performed low tracheotomy and child coughed grain out through tracheal wound after incision was made. Put to bed after operation with pulse feeble and fluttering in character.

Recovered from chloroform without nausea or vomiting; there was a slight bronchorrhea; temperature did not exceed 100.2° until 9 a. m. of June 8th, when it was 101° . There was a slight remission in temperature next day, but assumed a high, persistent type during night, accompanied by delirium and partial stupor.

June 9, calomel was given, followed by magnesium sulphate, 1 drachm. After calomel had desired effect, child recovered from stupor and temperature subsided. A bronchitis from which the child was suffering was then treated. Child passed into a state of convalescence. Primary union was not obtained in wound, which required dressing until June 22, when he was discharged cured.

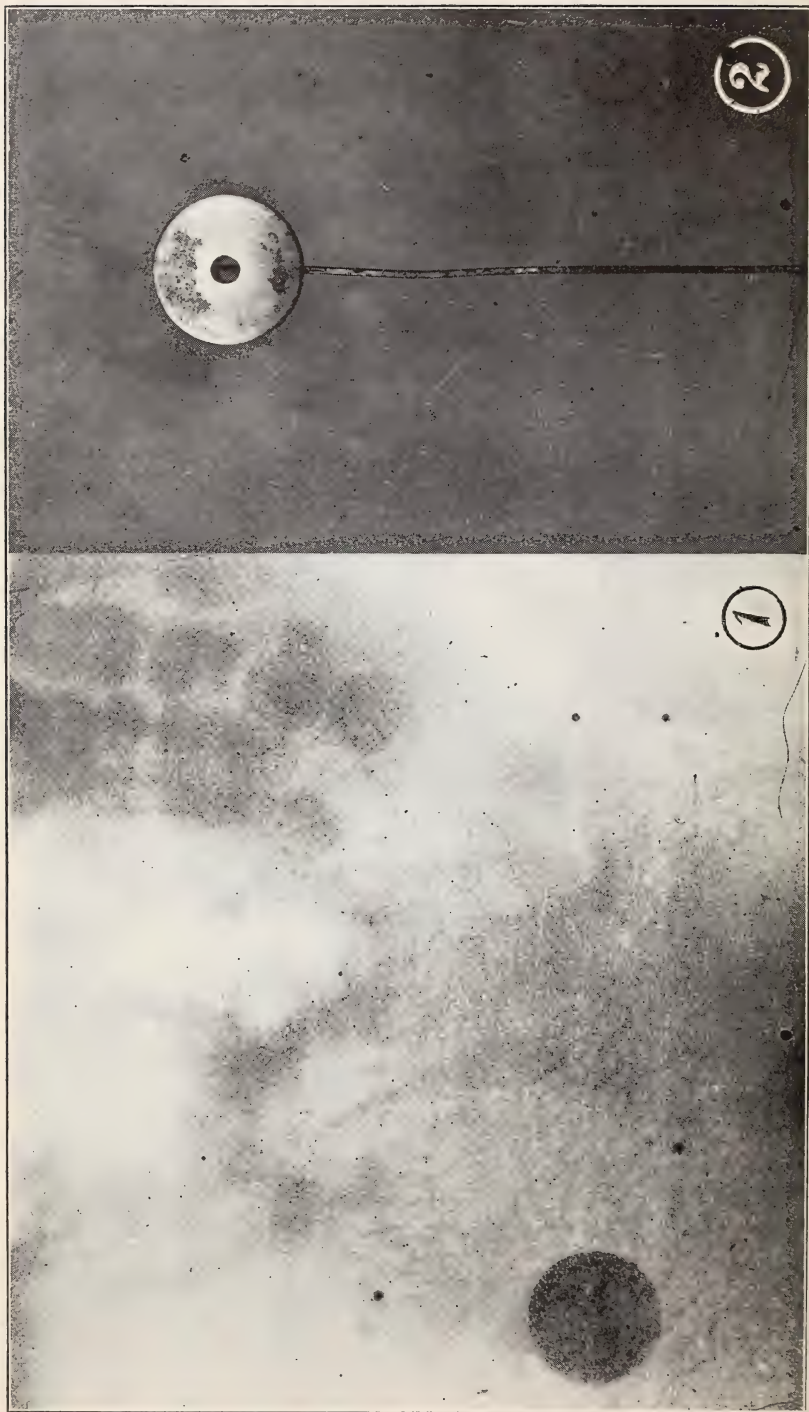
An unique case was that of a child aged seven years, treated on May 5, 1902. On May 1, the child swallowed a pebble which produced frequent paroxysms of coughing, always aggravated in early morning.

The paroxysms increased daily, grew more violent and were accompanied by cyanosis and suffocation. When brought to me on the evening of the fifth, the X-Rays were applied, but failed to locate the foreign body.

I performed a low tracheotomy, removed the stone and closed the wound. Was sent to bed at 10:50 p. m., still under the influence of chloroform, but in very good condition, pulse good in character. Right side of face and eye were emphysematous.

At 11:45 child had fully recovered from chloroform, become very restless and cried a great deal. From this time emphysema rapidly increased, involving chest, abdomen, face and upper extremities. Two sutures from lower angle of wound were removed and air pressed out. Morphine, gr. $1/20$, given at 1 a. m. and repeated at 3 a. m. had satisfactory result; nourishment, iced Ducro, $\bar{3}$ i, was commenced at 2 a. m.

May 6, emphysema very extensive at 1 p. m., lower angle of wound was dilated and gauze drain inserted; this did not give



Figures 1 and 2, Illustrating Dr. Bloom's Article.

relief; child very much distressed and breathing labored, temperature from 100 to 102.4°.

At 7 p. m. I removed suture from trachea and laid the whole wound open. A sterilized hypodermic needle was inserted in tissues and air pressed out through needle.

From this time there was a decided improvement, breathing was less labored and emphysema was arrested. Morphine, gr. 1/20, was given at 9 and 5 for restlessness; stimulated by strychnine, gr. 1/20, and strophanthus, gtt. iii, every four hours by needle. Strophanthus was given instead of digitalis, being less irritating to the tissues.

Child did not nourish well, nutritive enemata, panopeptone, 3ss, and saline solution, 3ii, were given.

May 8, temperature was normal, stimulation discontinued. Liquid diet given until May 11, when diet was gradually increased.

It was fully two weeks before emphysema was entirely absorbed, child was not permitted to sit up in bed until the tenth day on account of emphysema, although her general condition with that exception was excellent. On May 22, the child was allowed to get out of bed. Wound healed beautifully by granulation, leaving only a slight scar. Discharged cured May 23, 1902.

An X-Ray photo of a whistle (No. 1) that I removed from the right bronchus of a boy about twelve years of age, and which is additionally pictured (No. 2) after removal, is presented to add to the recitation of cases that I can at this time recall. This case, from the size of the whistle and its favorable outcome, is of interest. These cases but in part detail the series of efforts that I have made with such accidents and manifest a decisive method of procedure, which is in part the purpose of this writing.

Multiple Pregnancy—History and Treatment of an Unusual Termination.

By E. STANLEY MATTHEWS, M. D., Bunkie, La.

Plural pregnancy occurs once in about 75 pregnancies. The condition is usually unrecognized and is as much a surprise to the attending physician as it is to the mother.

A history of twins in the family of either parent is not un-

usual; suffice to say, however, from an embryonic viewpoint, one or two ovules enter the uterus and become impregnated about the same time, giving rise to what is termed *double* or *single ovum* twins. The growth of these embryos depends on circumstances; occasionally, one develops into a well-formed foetus, which goes to full term, while its companion perishes at an early age and is then expelled, or it may become mummified and remain in utero to be expelled at the birth of its mate at full term. The following outlined case, ending in abortion, will demonstrate a rather unusual termination in such cases:

Patient, negress. No previous twin history. Age 33. Married thirteen years. Two previous single abortions. Six living children, youngest two years old. No syphilitic history.

Five days previous to my first visit the membranes ruptured and several ounces of liq amnii escaped. On examination I discovered a foetus of about four months lying between patient's thighs. It had been expelled two hours before. Evidently it had been lifeless for several days. There was no hemorrhage whatever. After severing the cord, examination over the abdomen failed to locate the fundus uteri. Massage and the Crede method were used for contraction, and perhaps expulsion, of the after-birth, but unsuccessfully. On vaginal examination the os was thick and patulous. Under the circumstances, it was considered best to treat the case surgically and remove the afterbirth with a large auger curette. The patient was drawn to the side of the bed, placed in the lithotomy position, the cervix seized with a vulsellum and the curette easily inserted. It disappeared its entire length, and, on revolving, encountered no resistance. On withdrawal it failed to dislodge the evidently closely attached placenta. Failing with this method, the cervix and vagina were tightly packed with gauze and a T bandage applied. The patient was given 20 grains of quinin, and I returned two hours later with an operating table and better equipped surgically to terminate the case. During my absence the patient had had several pains, and the fundus was plainly felt below the umbilicus. On removing the pack I was gladdened to see what I thought to be the placenta presenting in the os. This mass was hooked down with my index finger, when a membrane ruptured and about six ounces of a thick, odorless, whitish fluid gushed over the speculum, and in

this fluid a mummified foetus (Foetus Papyraceous) about four or five inches floated. The cord of this foetus was small and twine-like, as compared with the other, which was about one-fourth of an inch in diameter. An intra-uterine douche of bichloride was given at once, beginning at the fundus. As soon as the field was clear, the auger curette was inserted and separated, first, a large placenta about four inches in diameter, and after a little difficulty a second smaller placenta, perhaps two or three inches in diameter. An intra-uterine and vaginal douche; an iodoform gauze drain from the fundus to the vaginal outlet completed the case. On the following day the drain was removed, an intra-uterine douche given, and after several days of temperature not exceeding 100°, the patient recovered.

A Case of Traumatic Tetanus.

By DR. E. M. DUPAQUIER, New Orleans.

On September 7, 1908, in the morning, I was called for the first time to see a white woman, aged 33. She told me her jaws were locked since 4 o'clock that morning, and that her neck was stiff.

I inquired as to the receipt of some injury, ten or fifteen days back, putting specific questions as to the nature of the injury, beginning by the usual, "Did you run a nail into your foot?" followed by, "Did you fiddle with a toy pistol?" concluding with the inevitable question, in women cases, "Did you have abortion practiced on you?" "Yes, doctor. A granny did it for me." "When?" I understood her to reply, "Two months."

It looked like tetanus, sure enough; but, a number of usual signs were missing, and I could not connect the abortion of two months ante-date with this case of tetanus, unless by stretching and reaching too far.

So I thought seriously of hysteria, at first; of course, eliminating strychnin poisoning, as the extremities were all right.

The same day, in the evening, the brother of the patient came to me. "Doctor," says he, "she is worse. She is as stiff as a log. Her mouth is closed tight since 2 p. m."

Hardly twenty minutes later I was at the bedside of the patient. The sister of the patient now tells me, in the back room, in a

whisper, 'Doctor, the patient had a 'mis' TEN DAYS ago. It was a two-month 'mis.'"

Enough. It was a corker. Diagnosis: Traumatic tetanus.

Treatment and result: Careful curettage under chloroform at about 9 p. m. She needed it badly. Morphin by needle, and bromide with chloral ordered in case of need. Nourishment in periods of wakefulness.

Patient passed a comparatively quiet night. Twitchings only. At about 9 a. m. the next morning patient appeared better. Then the first severe convulsion came, and with it death.

Amen, until patients are wiser. The serum and the curettage combined, in time, might have saved this life.

Some Diseases of the Human Race Carried or Transmitted by Insects.*

By MILO C. BRADY, New Orleans, La.

Apropos of this, I mention a quaint doggerel that has long lingered in my memory, owing to its direct application to the frailties of mankind: "Every bug has a smaller bug on its back to bite 'em, and this little bug has a still lesser bug, and so on, *ad infinitum*."

According to one authority, insects carry disease in one of three ways: First, "By their actual presence as a foreign body or pus-forming irritant; as does the chigger or sand flea in the bare feet of natives of hot climates, or the itch of scabies; second, as mechanical carriers of infection; for example, the *Culex fatigans* in dengue, the tsetse fly, or *Glossina palpalis* in the sleeping sickness of Africa and the common housefly, the *Musca domestica*, in typhoid; third, in certain diseases they may serve as intermediate hosts of the infecting agent, which undergoes a process of evolution in the body of the insect which is necessary for its continued existence and requires a definite period of time.

This is the condition, *par excellence*, in yellow fever and malaria. It is the last two classes, however, the mechanical carriers of infection and the intermediate hosts that occupy our special attention.

The following named insects, and probably others, are known

* Read before Orleans Parish Medical Society, Sept. 12, 1908.

to spread infection by one of these methods: Mosquitoes, biting flies, house flies, ticks of various species, bed-bugs, lice and roaches. The proven diseases so conveyed are already numerous and those under suspicion are continually growing. They are the various types of malaria, yellow fever, dengue and filariasis, with its lymphatic and other complications; human trypanosomiasis, or sleeping sickness; kalar-azar; plague; Malta fever; relapsing fever; Rocky Mountain fever and other tick fevers of Asia and Africa; the Japanese river fever; miliary fever or Sweating Sickness of Picardy; cholera (by roaches), as in Manila; yaws or frambesia; beri-beri; typhus and probably leprosy; not to mention five or six obscure fevers of the tropics, such as the chitral fever of North India and the seven-day fever of the seaports.

Other diseases carried mechanically and largely by houseflies are anthrax, typhoid fever, cholera, dysentery, cholera infantum, tuberculosis, erysipelas, wound infections, purulent ophthalmia, trachoma and pink-eye of the Southern States.

Of these carriers of infection the mosquito is preëminently the most important and is the victor of the first four mentioned diseases, yellow fever, malarial fever, dengue and filariasis. The bacilli of leprosy have also been found in the *culex fatigans*, but it has not been proven that it conveys the disease.

For this reason I shall go into some detail as to the characteristics of the mosquito and its modes of disease transmission.

The mosquito has been well called the king of the insect world and it has been said that while other insects annually destroy value in lumber, cotton, grain and fruit to the amount of \$800,000,000, the mosquito each year destroys far greater value in health, life and commerce.

The mosquito drove the Spanish from the New World, caused the failure of the French attempt to connect the Atlantic and Pacific oceans and almost made non-combatants of the Fifth Army Corps at Santiago during the Hispano-American war, and had it not been for the prompt surrender of the Spanish army, would have cost the lives and health of hundreds of thousands of Americans, already practically made non-combatants by the same cause.

Till quite recently several hundred thousand human beings were annually killed by mosquito infection and many million others

injured in health. She has destroyed more lives than exist today. One mosquito in May has the power to develop a progeny by October that would rival the present number of the human race.

The mosquito is one of the nine orders of *diptera* or two-winged insects, of the family of *Culicidæ*. They have been divided by one authority into the *culicina*, long-billed or biting mosquitoes, and the *corethenæ*, short-billed or non-biting mosquito. Of these Theobald has lately divided the biting mosquitoes into five sub-families: *Anophelinæ*, *Megarhinæ*, *Culicina*, *Ædomaynæ* and *Trichoprosonina*, but for our purpose, we may divide them into two classes, the pathogenic and the non-pathogenic. Fortunately for our well-being, the non-pathogenic are incomparably more numerous than the pathogenic. These latter are included in certain species or three genera, *Culex*, *Anopheles* and *Stegomyia*, of the sub-families *Anophelinæ* and *Culicina*.

The two sexes are readily distinguished. The male is a juice and fruit feeder, and rarely attempts to bite, because the parts of the proboscis are not of the same character as those of the female, and it is a physical impossibility for him to introduce his jaws into the cuticle. He can be recognized by the plumose or bushy character of his antennæ, while the palpæ are frequently near the same length as the proboscis. In the female, the antennæ are feathery or pilose, while the palpæ are always short, except in *Anopheles*, in which, in both sexes, the palpæ are the length of the proboscis. The male mosquito sacrifices his life on the altar of duty when he fertilizes the female and thus continues the species.

The female mosquito, in common with that characteristic of other insects, is the bloodthirsty member of the family and she frequently appears so determined to satisfy her desire for blood because, after having been fertilized, in most species a meal of blood is a pre-requisite to a successful oviparation and she is simply answering the cry of nature when she so persistently pursues a human prey.

I here give an extract of a description of the proboscis given by Daniels in his latest work: "The proboscis is suctorial and piercing, and is composed of the following parts: 1. Below is a deeper grooved fleshy labium or lower lip, which forms what appears to be the proboscis when the mosquito is at rest, but which contains

the other piercing elements and does not itself enter the skin; it terminates in two small jointed lobules, the labellæ. 2. Above is a labrum or upper lip, which is deeply grooved on the under surface and terminates in a sharp point. 3. This groove is by the apposition of the hypo-pharynx converted into a tube, up which the food is sucked by the pumping organ of the esophagus. 4. The hypo-pharynx is a flattened chitinous rod, containing a minute canal almost a tube, the distal termination of the salivary duct, by which the saliva to liquify the blood is poured into the depths of the wound. (This contains a toxin that is often injurious to delicate skins.) This wound is made by the two pairs of piercing organs, the two mandibles or divided upper jaws and the two maxillæ or lower jaws. These four organs, with the labium or upper lip, carry the soft hypo-pharynx into the wound very much in the manner that a rubber tube is carried into a wound by a pair of dressing forceps."

It is well-known that the life of a mosquito is divided into three phases, and in the great majority of instances the time that elapses from the deposition of the egg on top of stagnant or quiet water and their appearance as an air-breathing wiggletail or larva, and passage through the pupa to the winged adult insect or imago, is from ten to thirty days, depending upon the temperature or the genera. They breed more rapidly as the weather grows warmer. The mother will deposit from forty to four hundred eggs at an oviparation, according to the genera, and in many species repeat the process several times, as in a single act of coitus by the male sufficient spermatozoa are stored up in special receptacles to fertilize several series of eggs. These will hatch in from one to three days, will remain one week or more as larvæ, ungilled, like the whale, and breathing through respiratory siphon, except in *Anopheles*, which protrudes near the end of the tail. These larvæ have large mouths and jaws and possessing an inordinate appetite are continually moving their ciliary brushes and sweeping debris of all kinds, including younger larvæ of their own species, as well as others, into their capacious mouths.

While there have been about a thousand different species of mosquitoes described, it is a fortunate circumstance that most of them, except those few very widespread, are of quite local distribution and about thirty species only are as many as are liable

to be found in any one community. Of these the pathogenic mosquitoes (*Anopheles*, *Culex* and *Stegomyia*), the *Culex* is by far the most numerous and widespread over the earth and includes at least two hundred species; one only of these, *Culex fatigans*, is known to carry disease, though the *pipiens* is under suspicion.

The culex has clear, unspotted wings, and when resting on a wall or floor, the proboscis is bent at right angles with the body, thus giving it the appearance of being humpbacked. The palpi in the female are always shortest. The most common mosquito of that genus in this and most other regions is the *pungens* or *pipiens*, the ordinary gutter mosquito or guttersnipe. These little creatures, as their names denote, are markedly annoying. They are almost perennial in this climate, depositing their eggs in cess-pools, gutters and on any other fluids which do not contain an excess of salines, and are only absent in the colder days of winter. With certain south winds, at times, we are overrun by the fierce *Culex sollicitans* or *perturbans* from the salt marshes. These mosquitoes deposit their eggs on seaweeds or other debris where they may remain almost indefinitely till the tide rises and covers them, when they hatch almost at once.

Occasionally, as lately, we have visits from the so-called "Gallinipper," or *Psorosoflora ciliata*, veritable giants among their tribes, more than thrice the size of their dangerous compatriots.

The genus *Anopheles* consists of eighty to one hundred species, 15 of which are suspected and 17 are known to carry malaria. They are country-bred, and prefer natural pools of water, the edges of small streams or quiet spots among short grass on the borders of small rivers. Irrigating ditches are excellent breeding places for anopheles, as well as other mosquitoes. They have even been found breeding in the cavities made by the feet of animals. While essentially rural in their habits, they will enter dwelling houses and often hibernate in sheds and outhouses.

Seven species of this mosquito have been found in the United States, of which the most common are the *Anopheles maculipennis*, *punctipennis* and *crucians*. All of these, except the *crucians*, bite exclusively at night, and that is one of the reasons why night air has long been thought to be dangerous. These mosquitoes can be differentiated from other mosquitoes by these facts: 1. The

wings are spotted, due to an excess of scales on certain parts; 2. The palpæ, both in the male and female, are nearly, or quite as long as the proboscis; 3. In resting, the insect is forced to keep its entire body on a plane, head downward, owing to its extreme long rear legs, with the abdomen pointing upwards at an angle of 45 degrees, as a rule, with the surface; 4. By the method of oviparation. The eggs, 40 to 100, are laid singly on the surface of the water, where they float on the side, held up by air cells for that purpose. A rupture or wetting of these air cells will cause the egg to sink and thus prevent maturity; 5. The larvæ always rest on the side, because they have no respiratory siphon, as in the *Culex* or *Stegomyia*. These mosquitoes have never been known to fly more than half a mile, and rarely a greater distance than 200 yards. Numerous experiments have shown that malarial fever will follow 10 to 11 days after the bite of an infected *Anopheles*, provided the temperature remains above 80 degrees Fahrenheit.

When blood from an infected individual is taken into the stomach of this mosquito, a flagella from the male element enters the female and fertilizes her. This process is called conjugation, and the result is an actively motile body, the okinet or traveling vermicle. This body soon passes out of the stomach cavity and becomes encysted in the walls, where it is now known as an oocyst. This grows rapidly towards the body cavity of the stomach and away from the lumen of the tube, so that when near maturity they appear as globular excrescences stuck on the walls of the stomach. When this, the oocyst, ruptures, the mature elements or sporozoites, as they are termed, may be found at any part of the body of the mosquito, but especially in the cells of the middle lobe of the salivary glands.

The last of the pathogenic genera, *Stegomyia*, includes 25 species, one only, *Stegomyia calopus*, is recognized as the sole transmitter of yellow fever.

According to Marchoux and Simon, the young mosquito makes its first meal of blood only in the daytime, and once having done so, reverses its habits and then only feeds at night, and that is the reason why it is not usually dangerous to visit a yellow fever case in the daytime. They will not feed with a temperature below 73 degrees Fahrenheit. A female mosquito has been kept in captivity 154 days, and infection has occurred 59 days after the

original meal. A case of yellow fever developed at Havana, December 18, 1897, and a second infection occurred in the same house April 4, 84 days later.

The eggs of this mosquito differs from all others, in that they may sink to the bottom of their container and still mature without difficulty; or they may remain all winter in the residue at the bottom of a vessel. Gorgas says that it is probably an absolute impossibility to abolish this dangerous mosquito entirely in any one community; but they can be so diminished in numbers as to get them below what he calls yellow fever point—that is, the number will be so few that there will be no secondary infection.

DENGUE, one of the mosquito-transmitted diseases, carried mechanically by the bite of a *Culex fatigans* which has lately bitten a person suffering with that disease. The period of incubation is from two to five days after inoculation. Three days and fourteen hours is the average time of a series of experimental inoculations made in Manila, in 1907. There is no apparent development in the body of the mosquito, as in yellow fever and malaria, and the virus is probably infectious for a short time only, two or three days at the longest.

FILARIA, the fourth and last of the mosquito-transmitted diseases, is the most scattered and least fatal of all tropical and sub-tropical ailments. It is conveyed by eight species of mosquitoes, including the *Culex fatigans*, *pipiens*, *Stegomyia calopus* and several species of the *Anopheles*. It is reported that in some countries fifty per cent. of the inhabitants are subject to this disease.

The embryo of the filaria is extracted from the blood plasma by one of these species of mosquitoes, in whom it undergoes a definite growth and development, as here described after Manson: "When each embryo is drawn into the stomach of the mosquito, it is covered by a protecting sheath, which it at once makes violent efforts to rupture and get free from. Having done this, they make their way, usually in pairs, into the muscles of the thorax, where they remain until they are fully developed, occupying from 16 to 20 days in the process. The fully developed embryo at this time has attained a length of 1/16 of an inch and makes its way to the head and finally into the proboscis. Here it works its way into the labium or lower lip, where it may remain almost indefinitely 20 to 40 days, paying no attention to a meal of banana or

the like. However, when an opportunity arises to make a meal off a warm blooded animal, they come into violent motion and force their way through the thin membrane that joins the two labellæ, as the end of the labium is called, and make their way into the body. The mosquito is the intermediate host, while any warm blooded animal is the definite. Once in a man or other warm blooded creature, the miniature filaria goes through a growth and development and finds its way into the lymphatic trunk, where they undergo mating and reproduction. This occurring, the young embryo then passes into the blood current, while the parent remains fixed in the main trunk.

The *Filaria sanguinis hominis*, as it is incorrectly called, includes the embryo stage of at least probably sixteen different species of filarial worms. The three most common are *F. Nocturna*, *diurna* and *persistans*, meaning night, day and constant; i. e., the embryos of each are found at these times in abundance in the peripheral blood. An embryo is about the width of a red blood cell in thickness and an eighth of an inch in length. They can be readily seen under a low power microscope at times actively motile and lashing about among the red cells or curling themselves up like snakes. The presence of the embryo in the peripheral blood is productive of no evil effects, as far as it is known, but the adult worm, each measuring three to four inches in length, and often occurring in bundles of six or more, frequently cause mechanical obstruction of the lymphatic channels, resulting in such conditions as chyluria, elephantiasis, edema and thickening of the cutaneous cellular tissues. This is believed by Manson to result from abortion of the female worm from unknown causes, and the immature ova form emboli in the smaller lymph cases, with the resulting secondary complications.

BUBONIC PLAGUE, the imported disease that now concerns us, has prevailed as a pandemic since 1894, caused the death of 8,000,000 to 10,000,000, and is now present in 146 localities scattered over the world. Experiments by the Indian Pest Commission and other investigators, clearly prove that this disease is for the most part transmitted by an infected rat flea, *Pulex cheopis*, leaving a dead rat and seeking another host. Bubonic plague is primarily a disease of the rat family and only affects humans secondarily. The mode of infection is as follows: A flea that bites

a rat sick with plague sucks bacilli with the blood, which increase in number in the stomach of the insect and are found in quantities in the feces. When the infected flea makes a meal off any warm-blooded animal, it invariably discharges from its intestines blood and feces full of bacilli. These are easily absorbed through the minute punctures made by the flea, or through some abrasion on the skin or possibly directly through the cuticle if left in situ sufficiently long. The infection is said to occur only if the feces are permitted to remain on the body for a certain time and two baths a day is an absolute preventive against infection by that method.

Human *Trypanosomiasis* or sleeping sickness is carried by the bite of the *Glossina palpalis* or Tsetse fly.

MALTA FEVER, as is well known, is conveyed to humans by the milk of goats, which are frequently sufferers from that disease. The infection, in this case, is transmitted to the goats by the fleas that infest them.

The cockroach is the latest insect accused of crime, as it is thought to infect the water mains in Manila with cholera bacilli and to this cause is ascribed outbreaks of this disease, which occur here and there over the city, without any apparent reason.

The Chitral fever in India, which prevails only when the temperature reaches 70 degrees Fahrenheit, prevails from April to June, and has been ascribed to the sand-fly as a carrier.

The festive bedbug, though small in size, seems a powerful source of evil and is attracting universal suspicion. The habits are nocturnal, sleeping in the daytime and only seeking their prey at night. A number of diseases have been charged against them, smallpox, relapsing fever, typhus fever, miliary fever or sweating sickness of Picardy, leprosy and beri-beri. The pediculi are also suspected in this last named disease. Bedbugs full of bacilli tuberculosis cause the death of guinea pigs which have been inoculated with them. They were believed to have been carriers of the tuberculosis when no other cause could be discovered. One pint of bedbugs was found in the sleeping apartments of a young man who was suffering from an intractable anemia when his room was thoroughly fumigated with sulphur in 1905.

TICK FEVERS—Diseases caused by the bites of ticks have been

lately studied and there abundant opportunity to differentiate perhaps half a dozen varieties of fevers in various parts of the world, in addition to those already studied. Ticks are purely parasitic blood feeders of the sub-group of insects known as *Arachnidae*, of the order of *Acarina* and of the family *Ixodidae*.

The newly hatched larvæ have six legs and crawl up the stem of a plant and, if lucky, drop on some animal which may be passing, suck a meal of blood, again drop to the ground, moult, get another set of legs, crawl up another plant and drop down or attach themselves to another animal. If successful this completes the life-cycle of the tick. She attaches herself to an animal, gorges herself with blood, drops again to the ground and crawls to some secluded spot, where she proceeds to lay numerous eggs. At this time, she is merely an egg-bearing sac, and when she has completed her task, there is nothing left of her but shriveled skin, from which all life has departed. Ticks are known to lay infected eggs—at least one species, the *Boophilus bovis*. This latter insect is the cause of the fatal Texas cattle fever of the South. In this disease, there is found a parasite in the corpuscle like that of that of malaria, the *Parasoma bigeminum*. The young ticks are at once capable of infecting cattle, which they do when they attach themselves to an animal and sucks its blood.

If I may be pardoned for this digression in mentioning a disease that is so very common and causes such a tremendous loss in cattle in the South, I will pass on to the diseases of man and take up the Spotted Fever of the Rocky Mountains, long suspected and which has within the last twelve months been clearly proved to be due to the bite of the wood tick. This disease is found in Wyoming, Montana, Utah, Nevada and Idaho, but is most prevalent in an area of forty-five hundred square miles around Boise, Idaho, with the valley of the Bitter Root River as the center. It is interesting to know that the disease is only found on one side of the river. These ticks are believed to live on gophers, a small burrowing animal. They begin to appear in the first warm days of April and very shortly after the first cases of fever follow. This is a very fatal disease, with a death-rate of 70%, the deaths occurring between the fifth and thirteenth days. These infected ticks lay infected eggs and there is every opportunity to spread disease. By June the ticks begin to disappear, the males and

females who have secured no hosts die and consequently new cases of the disease become less frequent and by July the outbreak is over.

Among other tick fevers is that of Persia, due to the bite of the *Persas argas*, and the fever is due to the *argas* of Central and Southern Africa. Another tick fever is the Kampali disease of the Zambesi River, in which an individual suffers from a severe fever of ten or fifteen days after the bite of a certain tick. In this fever there is shown the presence of an organism which develops in the body of the tick. The late Dr. Dutton, who made such advances in the study and the cause of human trypanosomiasis, fell a victim in Central Africa, a year or two ago, to this disease.

Among the lower animals, there are a number of tick fevers: 1. The previously mentioned Texas fever; 2, Rhodesian fever; 3, Trans-Caucasian fever; 4, African Coast sickness; 5, Spirolosis of fowls in Brazil; 6, Biliary fever in horses; 7, Malignant jaundice in dogs (the "Yellows").

The River Fever of certain regions of Japan is believed to be due to the Kadadi of the *ascaria*; the bacterium associate with this disease is supposed by Takana to enter through the puncture made in the skin by the mite.

Lastly, we take up the diseases by the common house fly. These nasty little pests live and breathe in decaying organic matter. They deliberately plod about in excrement till their feet and mandibles become loaded with it and then swoop down upon the food spread out for the family meal and use it "for a doormat to wipe off perhaps the bacilli of typhoid fever and anthrax." House flies have been allowed to alight at random on sterile cultures and the bacilli of typhoid have been cultivated from these. They have been observed with their feet covered with lime fresh from the latrines at Chickamauga Park during the Spanish-American War and crawling over the food set for the soldiers.

It is a noteworthy fact in India that cholera spreads wherever flies are very prevalent. Bacilli of cholera were found in flies during the Hamburg epidemic. During a recent epidemic of cholera in India a non-infected prison developed a number of cases when a host of flies were blown over the stone wall of the prison.

An epidemic of anthrax was developed in a community from

flies that had eaten off a dog that had recently died of the disease.

It may be remarked that the form and structure of the fly's feet, the tarsus, is such as to enable it to carry about a large amount of material, infected or otherwise. Actual experiments show that typhoid fever, swine fever, staphylococcal abscess, tuberculosis and anthrax, have been conveyed on the feet of flies.

House flies breed in horse manure and twelve hundred will hatch in one pound of manure; and since one fly will lay one hundred and twenty eggs and hatch a generation every ten days, we can well imagine how fast they will multiply where decaying organic matter abounds. The purulent ophthalmia of Egypt is carried by house flies. Our common disease, pink-eye, is caused by a minute species of the genus *hiplates*.

Arterio-Venous Aneurism of the Profunda Femoris; Operation by the Matas Method.*

By HERMAN B. GESSNER, M. D., New Orleans.

Rob. Wilson, colored, male, aged 21 years, laborer by occupation, was admitted to Ward 2 of the Charity Hospital of New Orleans, on April 13, 1908. He gave a history of having been shot through the upper part of the right thigh on Saturday, March 21, with a pistol of 38-caliber. Bleeding was not particularly free. He stayed in bed about 10 days, then got up and did some light work about the yard. On the same day he noticed a throbbing swelling about the wounded portion of his thigh. The throbbing increased and grew steadily more painful until he was admitted April 13. Examination at this time showed a healthy, well nourished subject. A round scar could be seen on the antero-external aspect of his right thigh, another on the postero-internal side, the line connecting the two traversing the middle of Scarpa's triangle. A considerable swelling, some 5 degrees in diameter and about 1 degree above the general surface level, occupied Scarpa's triangle and projected well to the inner side of this space. Over a limited area around the wound of entrance antero-externally could be felt a very superficial thrill, while over the remainder

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of the swelling a pulsation, distinctly expansile and free from thrill, was palpable.

On auscultation a humming bruit suggestive of an arterio-venous communication could be heard near the wound of entrance, on the strength of which Dr. R. Matas made a diagnosis of false aneurism of arterio-venous nature, though to the writer it did not seem sufficiently distinctive to warrant this positive conclusion. Over the remainder of the swelling a systolic bruit was audible. The diagnosis was evidently false aneurism due to gunshot injury of an artery at least, with possible injury of a vein in addition and mingling of the blood streams in the newfound blood cavity.

On April 12, patient under ether, Wyeth's pins were introduced and a constrictor applied above, with a gauze pad over the femorals. This controlled the circulation satisfactorily except for the insufficient thickness of the gauze pad, which had to be reinforced by pressure with the hand.

A curvilinear incision allowed the turning back of a skin flap and the exposure of the aneurism, the superficial covering of which was the deep fascia of the thigh only. This was incised longitudinally and the clots turned out with the help of wet gauze mops. A vascular opening was early seen on the outer side of the abnormal cavity, oval and so thin-walled as to suggest a vein. This was closed with a fine full curved round needle and No. 6 intestinal silk. Distal and somewhat posterior to it was a round opening, thick-walled, indicating an arterial injury; this was closed with the same suture material. Removal of the constrictor showed at first some escape of blood, which was remedied by whipping over the first line of sutures with a second of the same material. A gauze pack was left in situ and the wound sutured.

Closer examination of the cavity and its surroundings showed that we were dealing with the profunda artery and vein, as the openings were well below the surface level of the common and superficial femoral vessels, which could be seen on the outer side of the aneurism cavity and felt to be intact. The blood escaping from the vessels had formed a cavity bounded superficially by the deep fascia, posteriorly by the pectineus and adductor longus and brevis, and externally by the vastus internus and sartorius and

the femoral vessels. A diverticulum had found its way, like a finger, by dissection between the adductor longus and brevis muscles.

A moderate discharge escaped from the wound, gradually subsiding until April 9, when unfortunately the patient was seized with an attack of erysipelas from which he died the following day, this being the second case of erysipelas that developed in the ward within a short period.

COMMENT: The direction of the wound should have suggested profunda injury to us, its line passing under the level of the common and superficial femorals. However, this feature of the case was not recognized before operation, the diffuse pulsation making its recognition by palpation difficult.

Dr. Matas's diagnosis of arterio-venous communication was proven correct by the operative view of the field, though made under conditions not favorable to the diagnosis of this particular form of lesion.

While the suture of the profunda vessels from within the false sac was not a matter of great importance in view of the free collateral supply at their disposal, the method proved simple and easily applicable and obviated the necessity of any disturbance of the parts by dissection for the purpose of applying ligatures.

The unfortunate result had, I believe, no connection with the operation, after which the patient lived 18 days without the slightest loss of blood or other evidence of weakening on the lines of suture.

Some Demonstration of Advantages of the Surgical Engine in Bone Work.*

By DR. WILLIAM M. PERKINS, New Orleans.

It is not the purpose of this demonstration to emphasize the good qualities of any particular make of surgical engine, but to bring to your attention some of the advantages of power-driven bone instruments.

There are over a half dozen forms of power drills being used by surgeons. The regular foot power dental engine was used in surgery in this city by Dr. George A. Friedrichs many years ago.

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The writer was introduced to the electric "bone engine" by Dr. Parham nearly a decade ago. Dr. Matas has for some years used a hand power rotary cable transmission engine.

Electrically driven cord transmission dental engines have been long used in surgical work. Small electric motors designed to be held in the hand by the operator, with the drills attached directly to the motor shaft, have been used by various surgeons. None of the various types is free from objections. Some dental engines lack power for heavy bone work. Devices transmitting power to hand pieces by rotary flexible cables are open to the very serious objection that sharp curves interfere with the cable rotation and the range of the operator is limited. Of the electric drill motors to be held in the hand, the lightest appear to weigh over seven pounds, which must be very heavy for perfect freedom of control. But there are many valuable surgical devices and procedures whose range is quite limited. Even in its present state of development the "bone engine" is a material help in bone cases, and, as much of the distinctly operative work on bones is done in public and private hospitals, it is quite practicable to utilize it.

Osseous surgery is often tedious and anything which may shorten the anesthesia is of value. Traumatism of soft parts often contribute largely to unsatisfactory results, especially in the two extremes of operations on badly contused and infected tissues (compound fractures, etc.) and operations where rapid aseptic healing is very essential. Accidental traumatism from chisels and drills that slip off of or through bone into soft parts, constitute another class of dangers in bone work. Accuracy of drilling, excavating and trimming and the avoidance of unintentional splintering by chisels, are not always easy to maintain. In all these particulars, the writer has found the power-driven bone instruments very satisfactory. In many cases the lesion may be inaccessible to these instruments and in many cases their use would be unnecessary or worse. Please understand that they are not urged as substitute for all bone instruments. So much has been written about these machines in cranial bone surgery that the writer purposely omits taking up your time with that phase.

The apparatus with which the most of the writer's experience has been gained, is one at the New Orleans Sanitarium, which is operated by a small cautery motor. The flexible wire cable about

a yard long, connects to the shaft of the motor and to a detachable and sterilizable hand-piece. To this hand-piece, various forms of bone-cutting instruments may be attached. The device shown here tonight is the one belonging to the Senses Hospital and is, as you see, a portable motor apparatus of the above type.

(Illustrative procedures with the apparatus were carried out in the bone specimens presented.)

Exhibition of a Case of Volkmann Ischemic Paralysis.*

By CARROLL W. ALLEN, M. D., New Orleans.

M. C. C., *æet* 29, January, 1907, while hunting, was shot with a load of bird-shot, the load passing under the skin of the right arm on the inner side about the middle, many of them imbedding themselves under the skin of the arm, but a large number passing on to the lower part of the forearm, wrist and hand, some passing through the hand and wrist.

The medical attendant at the time placed the forearm and hand in a splint. This caused great pain, the fingers becoming numb and the soft parts above the upper ends of the splint becoming much swollen. The splint was removed in four days. but reapplied and continued to cause pain, to which no particular attention was paid.

The splints were continued for several weeks and the fingers, which were much stiffened, began to flex and could not be extended. The flexing continued until the tips of the fingers were forcibly pressed into the palm of the hand; the lower part of the forearm became much atrophied and of a woody hardness, with very little mobility to the skin. The wrist joint had become firmly ankylosed.

In this condition he entered Ward 9 of the Charity Hospital March 30, 1908. A large scar was seen on the inner side of the arm, with many shot felt under the skin; there were also many to be felt under the skin over the bony prominences of the wrist and hand. The only voluntary movement possible was a slight wobbly movement of the fingers. It was only with the greatest force that the fingers could be pulled away from the palm, where their pressure was already threatening ulceration.

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The case was clearly one of Volkmann's contracture. Sensation in all parts was normal. The upper third of the forearm was not affected; here the muscles felt normal, but from the junction of the middle with the upper third, the woody hardness commenced, most marked on the flexor surface and continuing down to the wrist.

The involvement was uniform, not confined to any muscular group or any particular nerve distribution.

X-ray examinations were made, but no information gained that would help in the diagnosis or treatment. A few shots were seen in the tissues and the ankylosed parts determined.

April 25, under cocain anesthesia, the shot, 35 in number, were removed from the subcutaneous tissues of the arm, and while the parts were open the median and ulnar nerves were examined to determine if they had suffered any injury from the accident; they were both found uninjured and unaffected by any scar tissue. This operation was performed by Mr. Miles A. Watkins, the student in charge of the case, assisted by the writer.

The treatment instituted for the correction of deformity consisted in warm baths, massage and passive movements, together with galvanic baths, the latter carried out by Drs. Granger and Weiss, in the electro-therapeutic department of the Hospital, and consisted in immersing the arm up to the elbow in a vessel of water charged with the negative pole, the positive being placed at some indifferent point on the body. Daily seances were indulged in of about twenty minutes' duration.

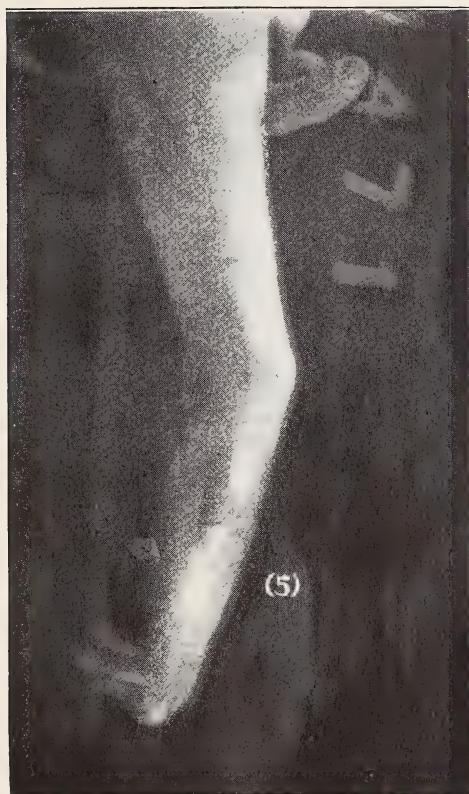
The improvement was slow, but progressive.

The patient was called home after a few weeks and did not return until August 20, at which date the treatment was resumed. You can see by examining him how much improvement has been accomplished in this short time.

This case illustrated the great danger of improperly or too tightly applied splints, a condition always a great misfortune to the patient and mortification to the physician and under certain conditions might be disastrous to the latter.

These contractures are brought about by the extreme pressure partially occluding the vessels and driving the blood out of the soft parts; if the vessels were completely occluded, of course gangrene would result. The muscle fibers being improperly nourished,

New Orleans Medical and Surgical Journal,
January, 1909.



DR. ALLEN'S CASE.

undergo a fibroid change, by which the muscle cells are replaced by fibrous tissue which, like all fibrous tissues, is prone to contract, bringing about the deformity that you see. These changes can of course be very limited in extent or extensive, as in this case.

Regarding the length of time necessary to produce these changes, some cases have been reported where these changes have occurred after four to six hours; this case kept the first splint on four days.

The earlier treatment is instituted, the better the results, and having a case where such a result threatens, remove the splint at once and resort to massage and warm baths to restore the circulation.

Whether what we are doing now will prove sufficient in the present case, or how far he will improve under it, is hard to say.

Two other procedures are sometimes resorted to. Where only a few muscles are affected some tendon lengthening operation may be done with much benefit. But in the present case, where all the muscles are involved, this is clearly inadvisable. In such cases the bones may be shortened, taking out a small section from both the radius and the ulna, enough to permit free extension of the fingers.

In addition to the electrical treatment, this patient is constantly massaging the affected muscles and making traction on the fingers.

Loewy's Test for Insufficiency of the Pancreas.*

By J. A. STORCK, M. D., New Orleans.

Before proceeding to my subject proper it might not be amiss to make mention of the chemic and microscopic tests which for some time have been our main reliance in making a diagnosis of disease of the pancreas.

First to receive mention is the presence of meat fibers and nuclei in the feces. After due precautions have been taken to provide a proper meat diet, the finding of meat fibers and nuclei in the feces affords valuable information.

* Read before Orleans Parish Medical Society October 10, 1908.

Secondly, the presence of fat in large amounts, especially fat droplets in the feces, is of considerable diagnostic import provided deficient secretion or outflow of bile, extreme intestinal tuberculosis and tabes mesenterica can be excluded. It might be of interest to mention here that fat has been found in the urine of a case of chronic pancreatitis (Lipuria).

Thirdly, the finding of sugar (dextrose), diacetic acid, and acetone, in the urine is significant. However, as acetone is also found in high fever, gastric and intestinal cancer, acute infectious diseases, and febrile gastric disturbances of children, not much reliance can be placed upon it unless fortified by other findings.

Fourthly, Brewer's and Williamson's blood tests may be mentioned, but these tests have proven fallacious at times.

Fifthly, Cammidge's reaction, the latest improvements made being known as reaction C., is considered thoroughly reliable by its originator.

Owing to its complexity it is highly improbable that this reaction will ever become popular in regular clinical work.

The test devised by Löwy, which I will now discuss, appealed to me because of its simplicity; for should it prove reliable after sufficient trial, it could be easily applied by the general practitioner. With the object of having Löwy's findings refuted or confirmed, I have brought this matter forward.

Löwy's original paper appeared in the *Policlinico*, Rome, July 26, 1908, No. 30. An abstract of it appeared in the *Journal A. M. A.*, Aug. 29, 1908, and it is from this abstract that I quote. Löwy found that "adrenalin instilled into the conjunctival sac had no appreciable effect on normal animals, but induced pronounced dilatation of the pupil in animals whose pancreas had been removed. The same effect was obtained in diabetics, while other patients showed no response to the instillation.

Quadro reports similar findings in 25 patients, 20 free from any tendency to pancreatic affection presented no reaction, but pronounced mydriasis was observed in the 5 others, and 4 of these had a tumor in the pancreas or were in advanced diabetes, while the fifth was an epileptic."

As I have only a bare excerpt of Löwy's paper at hand, I am not prepared to give his views regarding the theory of the proba-

ble action of adrenalin. It might be mentioned in passing that Underhill as cited by Mayo Robson and Cammidge found that adrenalin had a direct action on the pancreas.

My own experience with Löwy's test was obtained in its application in 16 cases, three of which were positive. These three cases presented evidence of pancreatic disease and are here recorded.

Thirteen of the cases showed no evidence of pancreatic disease and in these no pupillary changes took place.

In my test I used a 1-1000 adrenalin solution, P. D. & Co. No ill effects followed the use of the adrenalin.

POSITIVE CASES.

CASE I. Female, *aet.* 40; emaciated. Muscle fibers, nuclei and fat in large amount in the feces.

Urine, 24 hours, amount varying from 3400 to 3450 c. c.; sp. gr. 1033; sugar (dextrose) 3.5%; diacetic acid and acetone.

Instillation of 4 drops adrenalin solution produced in 5 minutes a marked mydriasis, which lasted for six hours.

This patient has died recently.

CASE II. Male, *aet.* 45, lost 50 pounds in six months; muscle fibers and nuclei also fat in large amount in the feces.

Urine, 24 hours, amount 3300 to 3450 c. c., sp. gr. 1030; sugar (dextrose) 2 to 2.5%; no diacetic acid or acetone. Instillation of 4 drops adrenalin solution produced in 10 minutes a marked mydriasis, which lasted for four hours.

CASE III. Male, *aet.* 60; has been losing weight for past two years, in all 75 pounds. Muscle fibers, nuclei, connective tissue, also large amount of fat in the feces. Stomach contents, free Hcl.; T. A. 30; no organic acids. Urine, 24 hr. amount, 3500 to 3550 c. c.; sugar (dextrose) 1.5 to 2.5%; sp. gr. 1030; no diacetic acid or acetone. Instillation of 4 drops adrenalin solution produced in 12½ min. a pronounced mydriasis, which lasted 3½ hours.

NEGATIVE CASES. Of the thirteen cases which proved negative to the test, two had pulmonary tuberculosis in the first stage; two were advanced cases of pulmonary tuberculosis; two had pulmonary tuberculosis with intestinal tuberculosis; one proved by

operation was a case of cholelithiasis; two were cases of cholelithiasis in which stones were found in the feces; one was a case of appendicitis, proved by operation; one was a case of ulcer of the stomach; and two were cases of simple gastritis. It will be noted that Case I, in which the reaction appeared the quickest and lasted the longest, showed the greatest involvement of the pancreas. Whether this be purely a coincidence or not, I cannot say. In all my cases, none reacted later than 12½ minutes. The thirteen cases recorded as negative were carefully watched for three hours after the instillation.

Otogenous Intracranial Complications in Children; Presentation of a Case.*

By HOMER DUPUY, M. D., New Orleans.

Our knowledge of the relative frequency of aural suppuration and intracranial affections is still incomplete. This is particularly so in children. Diagnosis even of their ordinary ailments is often difficult. It becomes a complex problem when morbid processes involve such areas as the middle ear and the mastoid, and through these the brain and its membranes. Aural and brain affections in children may give but faintest signals of distress. They may consequently escape attention. The brain fever of the older observers cover a multitude of diagnostic errors.

We know positively that the middle ear is more frequently involved in early life, and we further know that the anatomical arrangement of the temporal bone at certain periods of childhood would seem to favor extension of middle ear and mastoid suppurations to the intracranial structures. That this occurs more frequently than is usually supposed is the consensus of opinion among numerous observers.

Statistics show that one-third of all deaths occur the first two years of life. At this period many die of broncho-pneumonia. The association of cerebral complications with broncho-pneumonia appears in most statistical tables. Any relation between this disease and otitis challenges our attention. Pneumococci are admitted to be a caustive factor in many cases of suppurative otitis media.

* Read before Orleans Parish Medical Society October 24, 1908.

It is significant that Preysing, in 100 autopsies on infants, brings out the remarkable finding that of 121 infected tympanic cavities, 112 contained pneumococci in pure culture. Is the otitis primary or not? In either instance extension to the intracranial cavity by way of the middle ear or its accessory cavities is most plausible.

Scarlet fever, while a disease which is most common in children, is notably the enemy of the ear. It is not at all unlikely that meningeal infections of middle ear origin during scarlatina is more frequent than we suspect. The ear symptoms may be so slight or indefinite that they are overshadowed by other phenomena of the disease until the final clinical manifestations point to meningeal involvement.

ANATOMICAL CONSIDERATIONS. Extension to the intracranial structures from suppurations within the temporal bone may occur (1) by perforations through the tegmen tympani and tegmen antri, and the sulcus of the lateral sinus; (2) through natural channels, along the facial and auditory nerves, cochlea and semi-circular canals; (3) through the blood and lymph vessels.

The antrum is present at birth, but there are no cells in the mastoid. After the first year, the mastoid and parts of the middle ear begin to assume the adult type, but the temporal bone only reaches its full development at puberty. During this period of development it presents numerous dehiscences, foramina, fissures and sutures, which give it an apparent vulnerability to pyogenic processes. As in the adult infection may occur by way of the lymph and blood vessels without any visible lesions of the bony wall separating the ear and mastoid from the cranial cavity. Moreover, in children, the lymphatics being more active and permeable, must afford a ready inlet for bacteria. The points of least anatomical resistance are upward and backward along the bony plates which separate the tympanum, the antrum and the mastoid cells from the cranial cavity. These surfaces are exceedingly thin and may even be lacking in parts (dehiscences).

During the first year the roof of the middle ear (tegmen tympani) presents the petrosquamosal suture. At this point a layer of vascular fibrous tissue is padded between the dura mater and lining membrane of the middle ear. Just here is a vulnerable area, which may become a pus channel leading to meningitis or

brain abscess. It further explains the meningeal irritations sometimes associated with acute otitis media in infants. This fissure has been known to persist even after puberty.

On the other hand, in the squamomastoid suture, which is present in early life, we have a safety valve, true not an absolutely safe one. In some degree, this suture, by affording an outlet for pus within the mastoid, counteracts the weak structural arrangement of the partitions separating the brain cavity from the middle ear and antrum. Again, the superficial position of the antrum in the first three years and the anomalous fissures sometimes coursing over the mastoid, permit spontaneous perforations of the mastoid cortex when there are pent up pus collections within.

DIAGNOSIS. The usual symptoms of meningitis, such as cephalalgia, photophobia, contractions of the flexor muscles of the legs (Kernig's phenomenon), rigidity of the cervical and spinal muscles, vomiting, cutaneous hyperesthesia, contracted pupils, are also to be found in the otitic form. The same symptoms and extent of local changes do not belong to all cases equally. In children particularly we may have a masked meningitis, in so far as the brain phenomena are concerned. The type of the meningitis, whether lepto or pachy meningitis, whether purulent or serous in form, are diagnostic problems which frequently can only be resolved at the termination of the disease. The serous is the more common form of otitic meningitis in children. The spontaneous rapid clearing up of the cerebral symptoms in many cases, is evidence of this.

The feature of interest in regard to thrombosis of the lateral sinus is, that should it run a typical course, with chills, followed by high rise of temperature and a corresponding decline, it might simulate, to a dangerous degree, malaria. This mistake is more apt to occur in the case of young subjects in whom an otitis media may run its course without rupture of the drum and without earache, invading by subtle steps the mastoid and through it the lateral sinus.

With regard to brain abscesses of otitic origin in children, there are no special features, excepting that it is fortunately rare and when present is more apt to be localized in the temporo-sphenoidal

lobe as this lies over the tegmen tympani, a point of least resistance in the middle ear.

PREVENTION. It is in the application of preventive measures that we can render the most signal services to humanity. We must first rid ourselves of the old barnacled idea that to open the ear drum means to sacrifice hearing. It is utterly false and has worked harm to child life. Incision of the ear drum when there is a purulent or serous collection within the tympanum is positively a conservative measure, saving the function of hearing and directly protecting life itself. This simple operation, if more generally practiced, would greatly reduce the brain complications of otitis media in children.

We must emphasize the clinical fact that we can have pus in the middle ear without perforation of the drum and even without pain, a continuous rise of temperature may be the only recognizable symptom. This, if misinterpreted, might lead to serious consequences. It is worthy of mention that even should an otorrhea be present, nature having come to the rescue, the virulence of the discharge cannot be measured by its color, consistency, odor or quantity, the most formidable intracranial infection may originate from an apparently innocuous, scanty and odorless otorrhea. Therefore, there is constant potential danger lurking in acute and chronic middle ear suppurations. To effect a cure of these means the removal of explosive material and the reaction of possible extensions to the brain. The helplessness of the child in making known its subjective symptoms in diseases about the skull should put us in an aggressive attitude when a pyogenic process invades the temporal bone. The early recognition of mastoid disease and the early application of surgical treatment are life-saving.

The following case, which I now present, illustrates what can be accomplished by aggressive surgery, even in the face of tremendous odds.

Ivy Giesler, white male, 5 years old, had a slight earache in right ear January 26, 1908. There was no further trouble until February 1, 1908. Pain in stomach, vomiting and intense headache. A physician was sent for who diagnosed a gastro-intestinal disturbance. Patient continued to grow worse, when Dr. J. I. Hunter was called in and diagnosed meningitis of probable otitic origin. February 10, both drums incised, revealing a quan-

tity of pus in right ear. February 12, the following symptoms argued for operative measures. Strabismus, right internal; opisthotonus, contracted pupils to light, flexor contractures of the lower limbs. There being only the slightest discharge in the left ear, while that from the right was profuse and bloody, the right mastoid was opened and revealed marked cellular disintegration with an exposed dura over the tegmen antri, and an extra dural collection of pus in that area. The lateral sinus gave evidence of thrombosis on inspection. It was opened and obliterated by packing, as it showed a mural thrombosis. On next day facial paralysis on right side. For several days there was a marked general improvement. But temperature again showed septic curves. Left mastoid became tender. This was operated on February 15. Convalescence was slow, there being present a marked pyemia. March 19, patient left Hotel Dieu, on the road to recovery, but in bad shape. As you see him now the facial paralysis has disappeared, while there is still present slight internal strabismus on the right side, otherwise, the patient is in splendid condition.

Abstract of an Article on Spinal Analgesia in Genito-Urinary and Rectal Surgery.*

By CHARLES CHASSAIGNAC, M. D., New Orleans.

Mooted points in therapeutics or in surgical technic for their solution require time, numerous observations, dispassionate argument and impartial reasoning. Impediment to progress and advancement are, swinging of the pendulum, rushing to conclusions without sufficient evidence on which to base intelligent opinion, and considering as settled questions upon which light is only dawning.

All this applies to spinal analgesia. Its status is not yet definitely settled. Occasionally some unfavorable reports are published and the method is condemned. On the other hand, many good reports are issued and a number of eminent men favor it. Tuffier, who was the real popularizer of this form of analgesia, is still in favor of it.

This is not strange since the controversy regarding the relative

* Read before Orleans Parish Medical Society October 24, 1908.

dangers, immediate and remote, of ether and chloroform anesthesia is still going on.

I shall not go into the history of the method as this has been frequently done by others, as well as myself, previously.

Neither have I collected or quoted statistics, as time did not permit a careful compilation, avoiding repetitions or omissions, and, without such, one can find any sort of statistics desired if it is sought to prove a certain point rather than get at the whole truth.

Remarks will be limited to the use of the method in genito-urinary and rectal surgery, as work on these organs requires the deepest general anesthesia and can be done very satisfactorily with a very small amount of cocain used intraspinally.

I have not used other agents, such as stovain, because cocain has been satisfactory and the amount used is so small that it is difficult to imagine how it can prove toxic to any extent.

Reported few cases in January, 1901, in article published in the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

Paper on same subject as this was read before the Louisiana State Medical Society, in 1904, including report of 114 cases.

I have nothing specially new on the subject to bring before you, but desire to file additional evidence in the case, thereby, it is to be hoped, assisting in reaching a correct verdict.

Cases now total nearly 800 up to date. They are sufficiently numerous to deserve some attention and, as the results have been most satisfactory, some of the details, I trust, may prove interesting. The analgesias have been made by Drs. Delaup, Gelpi and myself. We have worked together in this line for about eight years.

It is probably worth while to describe the technic briefly, as modified up to date.

1. The skin of patient's back is rendered sterile from below the scapulæ to the coccyx, as would be done for any major operation. The spot of injection is again swabbed with alcohol just before the needle is thrust in.

2. The operator prepares himself as if for a major operation.

3. The cocain solution must be fresh and is sterilized just before use, as well as the needle and syringe.

4. The patient is made to sit on the edge of the operating table, with back curved and inclined so as to increase the space between the vertebræ, sterile towels surrounding the operative area.

5. The needle, which should be about $3\frac{1}{2}$ inches long, with a short beveled point, is introduced between the third and fourth lumbar vertebræ and pushed slightly inward and upward until the cavity is entered.

6. Four or five drops of spinal fluid are allowed to escape as an indication that the subarachnoid space has been reached and in order that the cocain solution may replace them, thereby maintaining the same intraspinal pressure.

7. Five minims of a four per cent. solution, or one-fifth of a grain of cocain are injected. Recently I have had equally good results from the injection of only four minims, and it is my intention to reduce the amount still further if possible.

8. After the withdrawal of the needle, the patient is made to sit up and the puncture is sealed with sterile cotton and collodion.

9. The patient is allowed to sit up for a few moments longer and the head is kept well elevated on pillows when he lies down again.

10. The patient must be made to understand that tactile sense will not disappear, that the sensation of pain alone will be abolished.

Youngest patient on whom used was eighteen years old; the oldest was eighty-one years, operated upon for hemorrhoids over five years ago and is still hale and hearty, as well as active. One, in his seventies, has had analgesia made four different times within the last five years for different operations on the prostate and bladder.

The operations performed have been external urethrotomy, prostatotomy, prostatectomy, cystotomy, lithotomy, orchidectomy, curettage and cauterizations of serpiginous chancroids, for ulcer and for stricture of the rectum, for fistula in ano, for anal fissure, for hemorrhoids, for prolapse of the rectum, for anal dilatation.

Has been done in very anemic patients, in the tuberculous, in some with cardiac and with renal disease; in many in which general anesthesia would not have been attempted.

No fatality; never alarming symptoms. Disagreeable symptoms have diminished both in intensity and in frequency as technic has been perfected. Nausea is of rare occurrence, certainly much less frequently than after general anesthesia.

Headache is the only comparatively frequent disturbance; is often absent; most of the time is slight and of short duration; occasionally lasts several hours, but is rarely severe; is of still less frequent occurrence since the dosage has been further diminished.

With over four years more of observation, with an addition of over 650 cases, now totalling nearly 800, I am able to reach the same conclusions as in 1904, which I will quote from the paper already previously referred to: "My humble opinion is that spinal analgesia will not displace any other method, neither will it die. It fills its proper place in our needs. It has its indications and contra-indications like local infiltration and general analgesia have theirs."

The question as to when to use it or when to prefer general anesthesia must continue to be left to the judgment and preference of the operator.

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DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

ALEXANDRIA MEETING, 1908.

DR. FRANK WATSON, of New Orleans, read a paper entitled

Arterio-Sclerosis and Nephritis.

In considering the subject of nephritis it occurred to me that it might be well to emphasize certain points which seem necessary for a thorough appreciation of the significance of albuminuria and cylinderuria occurring in cases which are clinically more or less generally confused. I refer to the conditions of chronic myocardial or valvular disease, with kidneys in a state of chronic pas-

sive congestion—arterio sclerosis with or without hypertrophy of the heart and the contracted patchy red kidney of arterio sclerosis and lastly to chronic interstitial nephritis, usually associated with left ventricle hypertrophy and a general arterial thickening of greater or less degree.

Of the first condition, chronic myocardial or valvular disease, I shall have little to say. The kidney change here is one of passive congestion, which may later, with the progress of the disease, show some interstitial overgrowth. The urine will be of diminished quantity, highly colored, and contain more or less albumin varying with the degree of congestion, hyalin casts or absence of casts, possibly a few red blood cells. The forms of nephritis with which this picture is confused are chronic parenchymatous nephritis and chronic interstitial nephritis in which the hypertrophied slow heart has become dilated, the sounds, particularly the aortic second sound, feeble and rapid. A diagnosis should be made after—(1) a careful consideration of the history, early shortness of breath, swelling of feet, etc., pointing to primary cardiac condition; dyspnea and edema being late symptoms of chronic nephritis. (2) A careful examination of the cardiac vascular system, particular importance being placed upon the character of the sounds, particularly the aortic second sound. Accentuation of this sound, plus thickened arteries point to primary renal or arterial change—feeble second aortic plus soft arteries point to a primary cardiac condition. (3) Time. The behavior of the case under treatment may clear up the diagnosis. A diagnosis is necessary first on account of prognosis and secondly, on account of the differences in the treatment of these conditions.

We now come to the main subject of my paper—arterio sclerosis; its relation to chronic nephritis. You are well aware of the controversy that has been going on for years—(since the publication of Gull and Sutton's paper in which they define arterio-sclerosis, arterio capillary fibrosis, as a distinct and primary disease of the blood vessels, and in which they assert that chronic kidney disease is secondary to the arterial condition)—over the question of whether the arterial changes are primary, the kidney changes secondary or whether the kidney is primarily at fault, the arteries later affected.

The frequency of association of arterial with renal disease is

striking. F. W. Mott (Allbutt's System of Medicine, Vol. VI., Page 322), gives the autopsy records of Claybury Asylum to emphasize this association. In 300 autopsies, of males 160, 113 showed atheroma, kidneys showed interstitial changes in 65; female 140, 81 showed atheroma and 61 showed interstitial changes of the kidneys.

At the Charing Cross Hospital, of 1600 autopsies, 380 showed sclerosis, 222 moderate or severe. Of the males 64% showed kidney changes; of the females 67%.

In 1872, Gull and Sutton proved to their own satisfaction, that the red granular contracted kidney of chronic nephritis is but a part of the general arterio-sclerosis, and they were the first to point out that what was formerly regarded as a disease of a single organ was neither more nor less than a part of a general systemic disease.

Lanceraux came to the same conclusion; v. Leyden asserted that arterio-sclerotic nephritis in its course resembled disease of the heart. The contraction processes in the kidney are slight and the changes consist in marked narrowing of the arteries-hypertrophy of the ventricles—the later brought about by increased tension. Romberg agrees with v. Leyden and says that the cardiac hypertrophy is one of the chief characteristics of arterio-sclerotic kidneys. He calls attention to the difficulty of differentiating this type from chronic interstitial type during life.

Councilman in his study of arterio-sclerosis, after dividing the conditions into nodular, senile and diffuse forms, says that the diffuse form is wide-spread, often associated with nodular sclerosis, occurs in strongly built middle aged men, heart affected as a rule; kidneys show extreme sclerosis but sometimes an increase in size—part of a wide-spread process affecting the arterio-capillary system.

Opinions differ greatly as to the frequency of the arterio-sclerotic kidney as compared with that of chronic interstitial nephritis.

v. Leyden and Senator say that it makes up a small part of the cases ordinarily grouped as contracted kidney; Romberg, that it plays a much more important part; v. Schrötter believes that arterio-sclerosis is the chief cause of contracted kidneys. Jores, on pathological grounds, reaches the same conclusion. Osler says

of chronic nephritis "by far the most common form in America is secondary to arterio-sclerosis."

On the other hand we know from clinical experience that in some cases the arterial changes are secondary to primary kidney disease and many authorities could be quoted as favoring this, as the most frequent course of events—notably Dickinson and West.

I do not intend to try at this time to convince anyone to a belief in either view—but I do wish to emphasize the importance of considering the general picture of each case that comes up for examination—directing particular attention to the cardio-vascular condition and to the past history of the patient as regards the etiological factors of significance to that patient, in an effort to ascertain what organ or system of organs is primarily at fault.

While in the late stages of the disease it may be unnecessary either from the standpoint of prognosis or treatment to determine whether or not the arterial condition is primary—it is absolutely essential in the early stages to make this differentiation: 1st. On account of prognosis and 2nd on account of treatment. My remarks apply to the early stages of these conditions.

Since the papers of Gull and Sutton arterio-sclerosis has been regarded as an independent affection of the blood vessels which, according to Councilman, can be divided into nodular, senile, and diffuse forms. The diffuse variety, frequently combined with the nodular, is the type of sclerosis of interest to us. Experimental studies are, so far, only of help to us in explaining the origin of the nodular variety—here the primary insult seems to be confined to the media, usually in the neighborhood of the vasa-vasorum—or consists in the rupture of the elastic fibers in this coat. The intimal changes are compensatory to the lesion of the media. In the diffuse form the process is a widespread, general arterial thickening. It is seen most commonly between the ages of 40-55 (Councilman's series) although it may occur in the earlier years and is particularly prevalent in the colored race. The aorta and its branches are more or less dilated—the intima may be smooth and show no naked eye changes or it may be studded with grayish white opaque areas more or less elevated.

Microscopically the media show degeneration or necrosis of the muscular fibers—fragmentation or degeneration of the elastic

fibers—the muscular and elastic elements being replaced by hyalin tissue.

This is particularly marked in the smaller arteries, particularly those of the kidney where the vessel wall may appear to be made up of a hyalin homogeneous tissue: the glomeruli showing this change especially well. The pathological picture of the arterio-sclerotic or small, red patchy kidney has been presented by Dr. Weis and needs no further consideration here. The point which I wish to emphasize is that the change is not diffuse as in the chronic interstitial nephritis but is patchy and confined to the cortex.

The results of these widespread arterial changes are increased resistance to the blood flow—hypertrophy of the heart—dilation of the larger arteries and contraction of the kidney with greater or lesser connective tissue overgrowth.

As a general rule it is said that with the contracted kidney there is an increased output of urine, both for the chronic interstitial as well as for the arterio-sclerotic form. From my own observation, I would say that in the cases which I have considered primarily arterio-sclerotic nature, the urine has shown a high color, a normal or decreased amount, a specific gravity normal or increased (1015-1025), albumin absent or moderate in amount, casts as a rule numerous and of the hyalin variety. While the cases which have appeared to be primarily renal have shown a urine of pale color, increased quantity, low specific gravity, below 1012, albumin variable in amount, casts of hyalin, perhaps hyalin and granular varieties.

From a study of the senile kidney ably presented by Felix Hirschfeld (*Berl. Klin. Woch.* 1906, No. 13-14) it would seem that the pathological appearance is approximately the same as that of the arterio-sclerotic kidney. Here we find clinically, a diminished quantity of highly colored urine of high specific gravity, containing variable amounts of albumin and hyalin casts. The findings of what might be said to be a pure arterio-sclerotic change—and the findings which we may expect in the arterio-sclerotic kidney before the interstitial changes have become marked.

A patient, then, giving the history of one or more of the etiological factors of arterio-sclerosis—who presents on physical examination an hypertrophy of the heart—heart sounds loud and clear at apex and base with an accentuated ringing aortic second sound,

thickened radial brachial and temporal arteries, high tensioned pulse and who shows a normal or diminished amount of highly colored urine of normal or high specific gravity, variable amount of albumin with or without hyalin casts—is suffering from a condition primarily arterial—to which the kidney changes to those to follow are secondary. This is by far the most common clinical picture according to my observation. The diagnosis should be arterio-sclerosis—the prognosis based on the cardio-vascular system. The albumin is no more than an indication that the arteries and glomeruli of the kidney are affected in the general change. The patients if seen early can be greatly helped—can be given years of comfort. The prognosis is much better than for primary chronic interstitial nephritis. The latter condition would show a large amount of pale urine of low specific gravity, a variable amount of albumin, and hyalin, possibly granular casts, and upon physical examination an hypertrophied heart, more or less thickening of the arteries, greatly increased blood pressure and albuminuric retinitis.

In the later stages the two conditions are approximately the same clinically and can be differentiated only on the early history. Here, however, the separation of the two conditions is not important either for prognostic or therapeutic reasons.

In the earlier stages, however, a differentiation is essential. While much can be done with both conditions in this stage, it appears to me that the prognosis of the primary chronic interstitial nephritis is far more grave than that of the arterio-sclerotic form. For this reason, if for no other, an accurate diagnosis should be made.

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DR. J. B. ELLIOTT, JR., of New Orleans, read a paper entitled

Treatment of Nephritis.

In opening a discussion on the treatment of nephritis, we must constantly keep in mind the physiology and pathology of the kidneys and base our treatment strictly on the facts gleaned from a study of those most fundamental subjects, refusing to be carried away, either by the numerous theoretical or empirical reasons which have been advocated in defiance of known pathological findings.

I must make here an acknowledgment of my complete adherence to the views of Von Norden; his masterly monograph on nephritis should be read by every student of medicine.

In acute nephritis, we find the capillaries of the Malpighian tufts congested and even thrombosed, swelling and desquamation of the epithelium of the tubules, inflammation and exudation between the tubules; giving us as symptoms, scanty urine of high specific gravity, large amount of albumin; blood, epithelial, hyalin and finely granular casts, dropsy, headache, nausea, uremia. How can we convert this pathologic into a physiologic condition? Rest in bed is the first essential, with warm clothing, being careful to avoid chilling when using bed pan or urinal; next a diet of milk $2\frac{1}{2}$ pints and cream $\frac{1}{2}$ pint, to be used in the 24 hours or better still starvation, except for a little cracked ice, for first 36 hours, see that the patient has at least two actions in the 24 hours by using saline cathartics; restrict the use of water to as little as possible and never exceeding 2 pints in the day; to this latter rule there are, of course, exceptions, but if there be much edema, I do not see how we can hope to reduce it by increasing the intake of water. We must drop this false idea that we can unblock the tubules and thrombosed glomerular capillaries by making them do extra work.

Here we must employ sweating, best by the electric bath, but at least by wrapping the patient in a warm moist sheet, covering him with blankets and surrounding him with hot bottles, quenching his almost unbearable thirst with small pieces of ice. If the pack has no good effect, I frequently employ hot saline enemas, or rather flushings, at 3 or 4 hours intervals; if there still be diminished urine and impending uremia, I know of no better remedy

than a LARGE dose of calomel; this use of calomel does not contradict my previous statements that we cannot unblock thrombosed capillaries by pressure, for it acts by drawing fluid from the tissues and emptying the veins of the Malpighian tufts.

Venesection is indicated in robust subjects or we may use moist hot packs or cupping directly over the kidneys. Digitalis, strophanthus, pilocarpin and buchu are of no use here, and may do harm. If none of these measures are of any benefit and our patient is on the verge of a convulsion, do not hesitate to give morphin by the needle. It may prevent the threatened edema of the lungs as well as the convulsion. Its evil after effects can be combated by brisk purgation.

When our patient is past the uremic stage, albumin decreased and urine is up to 20 to 30 ounces in 24 hours, then we may increase our water to 3 or 4 pints in the 24 hours, adding rice, toast and butter, baked apples, fruit juice, to the diet and stop our sweatings. Milk, cream and buttermilk must still remain the main constituents of the nourishment. In this stage, no drugs are indicated and it is only in true convalescence that we should begin to use iron to combat the anemia which always follows acute nephritis. I must say here, parenthetically, when you give iron use Blaud's pills or tincture of the chloride, don't use the numerous patent and proprietary articles which claim to add new virtues which are largely theoretical. To prevent a recurrence or the development into a chronic nephritis, it is most necessary that we map out a definite line of life for these patients; they must be warned against over-eating, and any form of alcohol; they must always dress warmly and avoid sudden changes of temperature; a thorough wetting after active exercise is almost certain to cause a re-congestion of an already crippled organ; if possible they should seek a warm and equable climate.

In chronic parenchymatous nephritis, we find the kidneys enlarged, the pyramids red and swollen, fatty and hyalin degeneration of the epithelium of the tubules, tubules blocked with granular detritus and tube casts, hyalin degeneration with proliferation of the epithelium in the Malpighian bodies and even the whole Malpighian body filled with blood, hyperplasia of the walls of the small vessels, giving us as symptoms, normal or decreased amount of urine of high specific gravity, large amount of albu-

men, blood, hyalin and granular casts, cardiac hypertrophy with hypertension in the arteries and arterio-sclerosis, gastro-intestinal symptoms, anemia, dyspnea on exertion, headaches, uremia. We have here a new feature added to the picture which was absent in the acute condition, *i. e.* Fatty and hyalin degeneration of the epithelium in the tubules plus disease of the whole arterial system due to the chronic toxemia. We must therefore, endeavor—1st. To check further degeneration in the glomeruli and tubules; 2nd, reduce toxemia; 3rd, relieve hypertension in the arterial system and threatened loss of cardiac compensation.

We have no drugs to help us in our first endeavor; it is simply a question of sparing the diseased organs as much work as possible; in other words, put nothing into the blood which will cause further irritation.

A diet, therefore, should be given as follows: Beefsteak or rare roast beef, small portion, once a day; rice, fowl, milk, milk soups, eggs, soft boiled or raw, toasted bread, green vegetables except radishes and cucumbers; cereals, cooked fruit.

Never allow alcohol, tea, coffee, pork, peppers, radishes, mustards. Meals should be given at frequent intervals and in small quantities, for the stomach has not its usual healthy blood supply.

To reduce toxemia we rely on the daily use of mild saline purgatives and alkaline mineral waters between meals; these mineral waters reduce wonderfully, sometimes, the albumin in the urine, the general anasarca and the accompanying toxemia, but their effect in the vast majority of cases is transient and they do not remove the cause.

Improvement in the cardiac and arterial conditions follows as a rule the removal of the toxemia, but we frequently have to resort to the nitrites and cathartics to lower arterial tension and prevent rupture of compensation with its accompanying edema of lung.

In the last stage of the disease with its accompanying anemia, we always find hypo-tension in the arteries and loss of tone in the cardiac muscles. Here digitalis, strophanthus and caffein plus absolute rest may prolong life for weeks and even months by restoring lost compensation, increasing pressure in the glomeruli and so increased elimination. In both the acute and chronic

forms of nephritis when edema is present, it would seem, from recent studies, wise to give almost salt-free diet.

Chronic interstitial nephritis—here we find the kidneys contracted, hyperplasia of all connective tissue, causing pressure on and atrophy of glomeruli, tubules, and vessels, sclerosis of all arteries, giving us as symptoms increased urine of low specific gravity, hyalin, and finely granular casts, albumin in small quantities or entirely absent, hypertrophy of heart with reduplication of first sound, hypertension and sclerosis in the arterial system, headaches, retinitis, diarrhea, cerebral hemorrhages, asthmatic attacks, but no dropsy.

The condition of the kidney here being one of gradual atrophy, usually slow in its onset and progress and allowing many years of almost normal health calls for prophylactic, rather than active, treatment. If recognized in the incipency we should at once inform the patient, not of its incurability, but of the fact that prolongation of life is largely, if not entirely, a matter of ability or willingness to lead a temperate life in all things, in food and drink, in physical and mental exertion. Dieting as in the parenchymatous form is the most important therapeutic measure, but can not be enforced with the same rigidity, but we can and must insist on *no alcohol, tea, coffee or tobacco* and on great moderation in the amount of food; for this is largely a disease of the heavy feeder and steady user of alcohol. Next therapeutically, comes exercise, or rather, I should say, rest; the manual laborer must resort to that work which requires the least amount of strain on the heart, the mental worker must curtail his hours of study, for mental activity even more than physical produces that same hypertension in the arteries that leads to cardiac dilatation and renal atrophy; medication, except for the regulation of bowels, is unnecessary in the early and mid-stage of atrophic kidney, except for the use of the iodides; that they remove hyperplasia in the arterial system I doubt, that they delay its development, I am forced to believe; so give it intermittently year in and year out, always after meals, and always well diluted. The late stage should be treated as you would a chronic arterio-sclerotic, add nitrites to your iodides and so take work off the heart, give daily warm baths, be guided in the use of water by the individual case, if increasing the use of water relieves the headaches and other

toxic symptoms by all means employ it. In the large majority of cases you will find, however, that it does not have this effect, and is simply over-filling the arteries and so gives the heart muscles more work.

In the acute exacerbations of chronic nephritis, we must pursue the same plans as laid down for acute nephritis. In the terminal stage of the disease, give the patient every liberty, both as to food and drink, and use morphin.

DR. ROY M. VAN WART, of New Orleans, read a paper entitled:

The Nervous and Mental Symptoms of Nephritis.

The occurrence of symptoms, disorders of other organs pointing to disease of the nervous system is a common source of error in diagnosis. They so often obviously point to a nervous lesion that the underlying cause is overlooked and it is only after new or unobserved symptoms force themselves on our notice that the correct explanation is suggested. This is frequently seen in the diseases of the kidney that have been grouped under the term nephritis, more particularly the chronic types. These symptoms fall into two groups, those resulting from uremic intoxication and those resulting from the accompanying arterial disease. The first group is the most important.

The older medical literature contains many papers concerning the insanity of Bright's disease, but during the last five years little attention seems to have been paid to this subject. That insanity does occur from Bright's disease seems to be certain, but it cannot in any way be considered specific and must be classed either under the headings of the intoxication insanities or those resulting from arterial disease. The symptoms of the mental disturbance from uremia differ in no way from those of other intoxications, and the acute form so resembles delirium tremens that some writers consider the accompanying albumin the cause of this latter affection. The acute uremia insanities are almost always fatal, and the following case shows the difficulties in diagnosis:

A male, *aet.* 45, who had previously enjoyed good health, complained of feeling unwell, and of sleeping badly for a few days. Owing to the trivial nature of his symptoms no attention was paid

to them, until 3 days later, when, after a restless night, he got up about 4 o'clock and wandered aimlessly around the house in his night clothes. He would not return to bed, talked at random and seemed to have no idea of where he was. These symptoms continued, and on attempting to put him to bed he became violent and had to be restrained. His physician, recognizing the probable nervous nature of the disturbance, asked for a neurological examination, and the patient was seen some 6 hours after the onset. He was restless, and with difficulty restrained in bed; the face was flushed, the pulse small and hard. The neurological examination was negative. As no history of any use of alcohol could be obtained, a specimen of the urine was withdrawn by catheter and found to contain a faint trace of albumin and many hyalin and granular casts. Lumbar puncture was negative. The patient became more restless, refused to talk and gradually sank into coma, dying 36 hours after the onset. The case is of interest as showing that in a patient supposedly previously healthy, a fatal intoxication mental disturbance can occur without warning. A second similar case was recently observed.

The mental disturbances of chronic uremia presents little difficulty, as the accompanying symptoms usually give the clue to the diagnosis. One form in which the symptoms resemble those of general paralysis deserves special mention, and is not infrequently seen.

The patients present the grandiose delusions, difficulty of speech and failure of memory, seen in dementia paralytica. In a case now under observation, the speech could, with difficulty, be distinguished from that of paresis. The more common symptoms of the chronic form are mental depression and delusions of persecution. The disease undergoes many exacerbations and remissions, being one day very marked and a few days later disappearing, leaving the patient apparently well.

The mental state of the patient suffering from Bright's disease is of great importance in the treatment of the disease. We observe one patient following medical advice and relegating his disease to the back ground, and pursuing his life as before, and another developing indefinite fears and studying his disease in detail; each new phenomenon meaning the progress of his trouble and requiring treatment to relieve it. Too little attention is often paid to this,

and every effort should be used to reassure the patient and to control his mental attitude towards his disease, though it must be recognized that here the individual factor plays an important part.

The relationship of neurasthenia to nephritis is a subject of interest, as many patients after middle life, presenting nervous symptoms of a functional character, show traces of albumin in the urine. Observations seem to confirm the opinion of Loewenfeld, Cramer and Binswanger, that these cases are early cases of nephritis and that neurasthenia very exceptionally, if at all, causes albuminuria. It is in these cases that so much can be accomplished by the careful study of how far it is necessary to treat the patient and so much harm can be done by ill-advised attempts to treat the albuminuria. Such patients should be told that the quantity of albumin bears no relation to their disease, and more frequent examinations of the urine than is absolutely necessary should be discouraged. In this connection it is probable that we are dealing with individuals whose nervous equilibrium is easily thrown out of order, and that the nervous condition should receive as careful attention as of the underlying disease.

The headache of uremia is often overlooked, particularly in the severer cases. Instances where the symptoms have suggested brain tumor, meningitis or brain abscess are not infrequent. The headache is severe, sometimes frontal, sometimes occipital, often preventing sleep. At other times it may resemble migraine. The following case illustrates this difficulty in diagnosis.

A male, *aet.* 45, previously in fair health, wakes with a frontal headache, which gradually becomes more severe. Sleep is prevented and drugs fail to relieve the pain. The urine shows no albumin, casts are not looked for. The headache continued for 10 days, with transient relief from morphin. The patient was then seen in consultation. He was in a semi-stupor, moaning with the pain, the face flushed and the pupils contracted. The neurological examination was negative. The eyes showed albuminuric retinitis. Lumbar puncture was at first negative, but 24 hours later, when the patient had become unconscious, it contained a large quantity of blood. The blood pressure was 250 *m. m.* mercury; the urine showed hyalin and granular casts. The specific gravity was 1020, and no albumin was present until just before death. A second case in a negro, *aet.* 39, with marked arterio-sclerosis,

presented much the same symptoms. When these patients show temperature the picture resembles that of meningitis or brain abscess, and the diagnosis can only be rendered certain by the finding of casts, as albumin is often present in the urine in these conditions. The coma must be differentiated from that due to other causes.

Paralyses of various types are not infrequent, and of these the hemiplegias are apt to prove puzzling in their resemblance to hemorrhages.

A male, *aet.* 48, was under observation for some time, complaining of vague pains, cramps and difficulty in walking. The urine contained a faint trace of albumin and a few hyalin casts. His condition was not regarded as serious. A short time later he was re-admitted unconscious, with a paralysis on the whole right side. This disappeared in 36 hours, and he went out, to be brought back a third time with a paralysis of the left side, which proved fatal. The autopsy showed edema of the brain, but no local lesions. The kidneys were small and covered with small cysts. These paralyses may involve one arm or one leg, and may last longer in the case above described. Aphasia has also been observed. Neuritis, either general or localized, may occur, but it is rare.

Neuralgias are not uncommon. They most frequently affect the trigeminal and sciatic nerves. Various paresthetic sensations, burning, sticking, crawling, are not infrequent.

The convulsions require differentiation from those of epilepsy, meningitis, brain tumor and brain abscess.

The vascular accidents, due to arterial disease of the cerebral vessels which occur so frequently, must not be overlooked.

In conclusion it may be said the nervous and mental symptoms of nephritis are due to one of two causes, either the intoxication of uremia, or the accompanying arterio-sclerosis.

The uremic symptoms differ in no way from those occurring from many other forms of intoxication, and are to be differentiated by the urinary findings. These same symptoms may occur in both organic or functional nervous diseases, and the same method is to be used in distinguishing them.

Repeated examinations of the urine are necessary, as we often find a normal specific gravity, and absence of both albumin and casts even in cases of advanced nephritis. That even in dying patients this may be true.

DISCUSSION OF PAPERS ON NEPHRITIS.

DR. LAZARD: I regret very much that the subject of nephritis from the point of view of the genito-urinary surgeon was not taken up. One point not mentioned is that of hemorrhage into the kidneys as a result of chronic nephritis. My attention was called to such a condition in a case sent to the ward as hemorrhage from the bladder. By the use of the cystoscope it was found that the man had hemorrhage from the kidney of the left side. The clinical history showed that the man suffered from chronic nephritis. His condition was so bad that nothing operative could be done. He died, and we found that his left kidney was filled with blood, the right only cirrhotic. Another case which I saw was one where the man had hemorrhage from the bladder likewise. From the history I made a diagnosis of hemorrhage, with chronic interstitial nephritis. The hemorrhage in these cases is not due to any mechanical cause, such as excessive blood pressure, but is due to rupture of the vessels. The urine shows a perfect admixture with the blood. I recently read a paper in the *British Medical Journal* on this subject, in which the author relates some forty-six cases in which the greatest number were in young subjects. That is, below forty years. In both of my cases the subjects were above fifty years. We ought to have some work along this line, because it is important.

DR. EUSTIS: I want to second Dr. Weis' admonition to collect the 24 hours urine, and to base no conclusions on specimens collected in your office, nor on specimens of the urine taken in the morning or taken in the evening. It is only safe to draw conclusions from the 24 hour urine. I have a case under observation now, whose morning urine is free from albumin and whose 24 hour urine shows a large amount of albumin. Dr. Halsey brought out an important point to the effect that each individual case is different. You cannot set down any set rule by which to treat nephritis. You have to study your case as each individual case of interstitial nephritis will be different. In this connection I wish to speak of diet. You will find patients with interstitial nephritis whose gastro-intestinal tract is comparatively normal, and whose liver has not as yet been damaged. They can take care of a comparatively large amount of nitrogenous food without any difficulty

whatever, and without showing any toxic symptoms. On the other hand, there are patients who, if given a slight amount of nitrogenous food, will show toxicity. We do not know which toxins cause uremia, but we do know that they are nitrogenous in character. As I reported some two years ago in a paper before the Orleans Parish Society, every case of uremia examined by me exhibited an excess of nitrogen in the blood. I have continued the investigations, but am now even more convinced than ever that the toxicity which we meet in an insufficiency of the kidney is due to an excess of nitrogenous products. Along with this I have conducted investigations regarding the excretions of indican, which is highly nitrogenous. In this connection I have used Jaffe's test, which I will show you to-day. It is very simple, and it is as important in cases of nephritis as is the determination of urea or albumin. I have a case, the urine of whom I have brought with me, who gets along fairly well until he takes excess of nitrogenous food, when his condition grows quickly worse. I told him to eat a moderate amount of beef Sunday, before coming here, and you will see the resulting large excess of indican. A number of us are under the impression that beans and peas are non-nitrogenous. They have almost as much nitrogen as meat. I frequently meet patients to whom the physician had recommended the use of beans and peas as a substitute for meat. In these cases you will have the same toxicity as though they had eaten meat. I have gotten a great deal from Dr. Elliott's paper on the treatment of nephritis. I wish to second his point about sweat baths. In the article I referred to I was able to reduce the nitrogenous element of the blood from 240 milligrams of nitrogen, down to 140 milligrams in the space of one hour and a half. Dr. Elliott spoke about the exclusive milk diet. I wish to take issue with him on that. Some patients cannot take care of it. Milk, if peristalsis is poor, may become subject to putrefaction. As long as you have lactic acid fermentation, you will be alright, but when the colon bacillus grows you will have an excess of indican and other toxic nitro-products formed.

His point about reducing the toxemia is in line with what we all believe. The diet should be guarded entirely by an examination of the urine. Usually they have a gastro-intestinal disturbance secondary to the trouble with the kidney. If you get rid of the

indican, you get rid of the symptoms found in these cases, such as headache, vertigo, etc. There is another point made by the doctor about over-eating, being the cause of most of his cases. Recently some experiments were conducted in which rabbits were taken and fed upon meat. They were forced to eat meat. In from 18 to twenty-one days the kidneys were examined, when it was found that fibrinous degeneration in the vessels of the kidney had taken place. I will now show you Jaffe's test, which is very simple, and I want you all to see it. This urine was taken yesterday before coming here. I have modified Jaffe's test as follows, as I have obtained more uniform results by so doing:

About 10 c. c. of urine are placed in one test tube and an equal amount of concentrated muriatic acid placed in another tube, to which two drops of concentrated nitric acid is added and mixed. The nitro-muriatic acid is then added to the urine and the mixture shaken up in the same test tube with about one c. c. of chloroform. The indican in the urine is changed to indigo, which is dissolved by the chloroform turning it blue. After a little practice, and by employing uniform methods, you will soon be able to tell at once whether or not indican is in excess.

DR. SIMON: The gentlemen who have had charge of this symposium have covered it very thoroughly. On the subject of gastrointestinal disturbance, very little has been said. The nephritic very often consults the physician for stomach trouble. That is frequently the first evidence to the patient that there is anything wrong with him. In dealing with people having stomach trouble, you should be on the watch for these conditions. It is not so much about the stomach, however, that I wish to speak. It is more on the intestinal tract. In the early stages of nephritis we often find that the patient is suffering with diarrhea, and that is practically the only symptom. In such cases the intestines are acting vicariously for the kidney. I believe it is agreed that the stopping suddenly of the diarrhea would be nothing short of criminal. Let us not make the serious mistake of treating a case as one of simple diarrhea before determining carefully the underlying cause. There is a form of dysentery which we find also in the terminal stage of nephritis.

DR. McSHANE: It has been my good fortune to come across a good number of cases of so-called Bright's disease in my own prac-

tice, and in that of my friend, Dr. Adrian Hava, and have always observed good results, though never, of course, quite the same in any two cases. Albuminuria is a symptom. There may be albuminuria without true Bright's disease, but true Bright's disease is never without albuminuria. This disease is of hemato-poeitic origin, and affects every tissue cell and fluid in the body. It is essentially chronic in character, and usually insidious in its development. Beginning with a perversion of nutrition, it necessarily interferes with the constructive, reparative metabolism of all the tissues, and thus brings about a degraded state of cell-structure and molecular change. Furthermore, this same perversion in nutrition affects retrograde metamorphosis, and also interferes with the proper elimination of effete materials. The first and most important deviation from normal metabolism consists in an alteration of the serum-albumin, whereby it becomes exosmotic and escapes with the urine. This is due to a partial demineralization of the plasma (principally phosphate of lime). Normal serum-albumin cannot traverse the capillary barrier of the renal circulation, but when it is not elaborated up to the normal standard, the capillaries no longer restrain it, and it escapes through the tubal epithelium, and forms an abnormal constituent of the urine. This exosmotic serum-albumin does not suffice to maintain the cellular protoplasm of the body at the normal standard, consequently there is a steady and progressive degeneration of all the organs, the corresponding impairment of function. At the same time, there is gradual accumulation of toxic substances in the body, and these are the materials that give rise to the symptoms of Bright's disease. These toxins are chiefly eliminated with the urine, but when elimination is interfered with, there is, of course, a gradual accumulation, until the point of saturation is reached and the system gives way, and death closes the scene. The mere loss of even a large amount of albumin daily cannot explain the symptomatology of the disease, for a much greater abstraction of albuminoid matter is borne daily without injury by nursing mothers. It is to be borne in mind that the albuminuria is a symptom, although a very important one; and our efforts at a cure should be directed to two points: 1st, promote elimination of accumulating toxins; 2nd, build up the molecules of the serum-albumin so that it may again fully serve as a nutriment to all the cell and fibers of the body.

When this second indication is fulfilled, the albumin loses its exosmotic quality, and it no longer appears in the urine. If we may reason backward, and judge causes from effects, I dare affirm that a remedy, that has been used by myself and a number of others for years, fulfils both of the above indications. The remedy in question is the solution of bromo-phosphate of lime and potash (Hava), which needs no introduction to any of our members; but it is not as widely used as it should be, for it is a potent remedy in all forms of albuminuria, whether post-diphtheritic, of pregnancy, acute, chronic or Brightic, and I feel that it is no more than right that the profession should be made acquainted with the most certain and direct remedy that has ever come under my notice. In the above remarks, I do not claim any originality for the ideas on etiology and treatment; but they are substantially those of Dr. Adrian Hava, who has given years of study to this disease.

DR. ELLIOTT, JR.: I want to bring out two or three points. First about the headache, I have found this condition often relieved by increasing the amount of water. I have found some patients who cannot stand a decrease in the amount of water. I have one patient whom I have been treating for three years, and another whom I have been treating for six years. As soon as I cut down the amount of water, they have trouble. As a rule, however, I decrease water. During the first three or four days of acute nephritis. I believe in a limited diet. In regard to diarrhea, I saw a case a short time ago with chronic diarrhea of several years standing, I examined for everything, and finally examined the urine which I found to be full of hyalin casts. There were no other evidences whatever. There is another point. I have seen cases where there was no albumin in the urine or hyalin or granular casts in six months, with specific gravity of 10.10, 10.09, or 10.08. The patient died with typical uremia. I do not believe in drugs in nephritis. Treat them by dieting. Stop the medicine for it does not do any good at all. Examine the urine once a month and teach the patient how to live, and teach them to leave alcohol alone absolutely. Now about meat, I allow our patients to have meat if they want it. I allow them to have rare steak once a day. I impress upon you again, do not give them *drugs*. Write out a prescription for the food they are to eat. If the treatment is proper, they can live along for years in fair comfort.

Orleans Parish Medical Society Proceedings.

President, DR. AMÉDÉE GRANGER. Secretary, DR. C. P. HOLDERITH.
141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.
DR. HOMER DUPUY and DR. S. K. SIMON.

MEETING OF SEPTEMBER 12, 1908.

DISCUSSION OF DR. BRADY'S PAPER.

DR. DABNEY: The paper read has shown great care and preparation and deserves discussion. I have a little garden in the back of my home and had it filled in with manure and was really surprised at the large number of flies hatched out within seven or eight days. The cisterns were screened and whilst we are watching the mosquitoes we should not overlook water closets, livery stables, dairies, etc.

DR. HAMILTON TEBAUT: Recently I read in the *Times-Democrat*, editorial section, of a disease we all have had the opportunity of seeing. I refer to the hookworm disease. And in this article it was stated that there were 150,000 cases in Georgia. This disease must certainly be transmitted either by the cockroach or bed-bug.

DR. BRADY (In closing): This is an opportunity to call your attention to the recent and increasing danger of bubonic plague making an entrance to the United States through New Orleans or some other Gulf seaport. At present plague is prevailing as an epidemic in many of the cities of Chili and Peru and in a number of cities within three days' journey of our city.

These first cases are hard to recognize because they are usually among white people and of the pneumonic type with the buboes as a secondary consideration. This is due to the method of infection by inhalation rather than to the presence of infected fleas. They can not be differentiated from an ordinary case of broncho pneumonia except from the greater severity of the attack and from the plague bacilli in the sputum sometimes amounting almost to a pure culture.

We must be very wary while this danger is present.

DISCUSSION ON DR. PERKINS' PAPER.

DR. ALLEN: In my experience upon the inferior maxilla I have found the Gigli saw the only satisfactory instrument, the chisel and rongeur are liable to splinter or crack the bone. The instrument Dr. Perkins has just exhibited has advantages over the Gigli, and its adaptibility to other bone work he has just shown. I am sorry some of the house surgeons from the Hospital are not here; their interest in an instrument of this kind might help us to secure it for our work there.

DR. DUPUY: I have found the electric burr impracticable in mastoid work, because we cannot absolutely control the motion. But, in work about the frontal sinus, it works fairly well, causing less amount of traumatism. It is quite adaptable to work about antrum of Highmore.

The electric burr will never replace the hammer and chisel in surgery about the head.

DR. LANDRY: In reply to Dr. Perkins' inquiry as to the style or type of drill used by Dr. Matas in his work, Dr. Landry stated that Dr. Matas has, in the past, used a hand power machine supplied with a similar cable as described and exhibited by Dr. Perkins.

DISCUSSION ON DR. ALLEN'S PAPER.

DR. LAZARD: Why was the diagnosis of Volkmann's paralysis made and why not paralysis due to the gunshot?

DR. LEMANN: I notice a scar on the forearm and it suggests to me an injury to the nerve and that the damage was not due to the splint.

DR. VAN WART: The patient presented by Dr. Allen was examined and the condition found to be that described. In this particular case, the ischemic paralysis was complicated by a neuritis and direct injury to the muscles themselves. The neuritis very frequently complicates this condition, and must be carefully differentiated as the prognosis is much better than for Volkmann's paralysis. This latter condition is due to a direct cutting off of the circulation of the muscle, and a consequent necrosis. The prognosis of the ischemic paralysis is very unfavorable. The patient cannot be considered to be a typical case. A complete review of the literature will be found in an article by Hildebrandt

in Volkmann's Sammlung for 1907. The electrical reactions serve to differentiate these cases from paralysis due to injury of the nerve itself.

DR. HUMMEL: I did not see the case Dr. Allen has shown, but I have had the opportunity of observing two other cases rather closely of late. Observation of this condition has impressed me that the condition is essentially one of contracture of the affected muscles, and not that of true paralysis. I might say that this fact is commonly recognized, as some authors designate the condition as Volkmann's contracture. In both the cases referred to, the forearm was the part involved and in each instance the fingers and wrist were in a state of flexion. However, upon extreme flexion of the parts passive and active movement of the fingers was possible, showing that upon shortening of the distance in which the affected muscles are to play, function could be maintained. This of course argues that there was pathologic shortening of the muscle and at the same time retention of contractility. Whether or not the electrical reactions will be disturbed depends upon the extent of injury to the nerve; and usually the nerve is not badly injured, and the trouble is mainly in the muscle itself from changes in its intrinsic substance.

DR. ALLEN (in closing): Regarding the paralysis as nerve paralysis, I can say that the condition does not follow any nerve distribution. In dissecting up the scar while operating, shot were removed and the median and ulnar nerves were found not to be involved in the injury or scar, and we may therefore exclude nerve injury.

DISCUSSION OF DR. STORCK'S PAPER.

DR. LEMANN: Dr. Storck's paper is very interesting. There are several criticisms worth while, however. The first is that because these patients had diabetes does not by any means prove that they had pancreatic disease. Secondly, the finding of fat in the stool is by no means conclusive of pancreatic disease; the fat may have been due to intestinal indigestion. It seems to me that our deductions must remain inconclusive without a series of cases with autopsy.

DR. HAMILTON TEBALD: I would like to know if chloretone was used with the adrenalin solution?

DR. DOCK, (a guest of the Society): I have the same misgivings as Dr. Lemann, but in view of the obscurity of pancreatic diagnosis any test that seems promising should be carefully worked up. Our thanks are therefore due to Dr. Storck for presenting his observations.

It seems to me it will be necessary to make a good many observations in cases that are likely to come to autopsy, since the lesions that are associated with diabetes are not lesions of the pancreas proper; that is, not of the part of the pancreas that furnishes the pancreatic juice.

It is necessary to get histological evidence of the changes that may be associated with the reaction. As has been mentioned the possible action of chloretone should be excluded.

I hope Dr. Storck will be able to continue his investigations.

DR. STORCK (in closing): In response to Dr. Lemann's question would say Löwy got positive reactions in animals from which the pancreas had been removed, and that the reaction was negative in normal animals.

Underhill studied the effect of adrenalin on the exposed pancreas of animals.

As to Dr. Tebault's question regarding chloretone, there was none in the adrenalin preparation used by me.

In reply to Dr. Dock, I may say that, whenever possible to hold them, post-mortem examinations would prove of undoubted value. Still, in the three cases which I have cited, there is scarcely any doubt that they were cases of pancreatic diabetes.

MEETING OF OCTOBER 24, 1908.

DISCUSSION ON DR. CHASSAIGNAC'S PAPER.

DR. LAZARD: I believe that I witnessed the first case of spinal anesthesia in America. It was performed by Professor Matas, in one of the side rooms of the Charity Hospital. At the Shreveport meeting of the Louisiana State Medical Society (1901), Dr. Perkins read a paper on spinal analgesia, and there I stated in the discussion of the paper that the ano-genital region possessed special susceptibilities for spinal analgesia. Dr. Gouley, only last year, inferred that spinal analgesia was not for genito-urinary surgery. Words coming from such an authority must certainly

have weight with some, when we consider the eminence of the man in G. U. work. I believe that Dr. Chassaignac inserts the needle obliquely. I have over some 200 cases in which I inserted almost directly. Dr. Chassaignac has never used stovain. I use stovain $\frac{4}{5}$ of a grain to 10 m. of sterile water and get absence of headache, vomiting and fever that come on usually. Stovain is certainly worthy of a trial. In orchidectomy,—had two cases last week—spinal analgesia is not the thing; local infiltration answers the purpose perfectly. Spinal analgesia, in my experience, is the best for external urethrotomy, especially if the case is difficult; the patient may be asked to urinate, and as the bead of urine appears a probe is inserted at the exit. In a man 78 years old, I performed a suprapubic prostatectomy with it. Have used spinal analgesia with good results in 7 cases of amputations of the penis, removing the organ, lock, stock and barrel.

DR. DELAUP: My experience with spinal analgesia is that the results have been uniformly good. I strongly advocate the use of it for surgery below the umbilical line—and in many cases of abdominal and pelvic surgery, it should be used. I employ the cocain solution, as has been stated by Dr. Chassaignac. Last year, in the Hospital, began using stovain, as follows: Stovain 1 gr., 2 m. adrenalin sol. 1 to 1,000, in 18 m. of sterile water, injected in the same manner as the cocain solution. As to the after symptoms, found no difference between cocain and stovain. Have observed headache whether stovain or cocain is used, though the only advantage in using stovain may be that it is less toxic. I do not use it in private practice, and the reason why I used it in the Hospital was thought by the chemist of that institution to be due to a defective quality of cocain. As Dr. Chassaignac explained, we are now using a lesser amount than formerly. The variety of cases in which it was employed were many. One of the very worst cases was that of the removal of the lower extremity with the innominate bone, performed eight years ago, and assisted by Dr. Parham. For G. U. and rectal surgery, it is the ideal anesthetic agent.

DR. J. D. MARTIN: Formerly, when we used cocain, our patients almost invariably suffered with severe headache. This year in 20 or more cases in whom we have used stovain our results have been excellent, and there has been no headache following.

DR. HACKETT: Have used it in two forceps cases and in peritoneal work, with good results, but as to cervical work, especially cutting operations, I have found it to be of not much value.

DR. PERRILLIAT: We should be thankful to Drs. Chassaignac and Delaup for the work they have done. I fully recollect that at first there were bad results, that is, deaths and paresis due to the subarachnoid puncture. I remember that Dr. Chassaignac was conservative, withholding his opinion and giving the method a thorough trial, though there were adverse reports in other clinics. In cases of cardiac or kidney trouble or diseases of the genitals, it is applicable. In case of dilatation of the cervix and of trachelorrhaphy, the method is not of use, for there is no abolition of pain. In peritoneal work, it is a very valuable method, since it dispenses with chloroform and there is no interference with the operation from vomiting. In the very few cases that I have used it, I only have reason to congratulate myself on the method and possibly the only objection may be in women that might be hysterical, and would prefer to be asleep while being operated.

DR. PERKINS: In New Orleans the work has been largely done by Drs. Chassaignac and Delaup, and to them belongs the honor. Though none of Dr. Delaup's patients died, I have seen some very sick negroes in his ward, after spinal analgesia. Nevertheless, he has faithfully used the method in spite of adverse criticism, and has achieved good results. It is especially applicable in cases where the patient is in good condition, or where there is dearth of assistance. I am afraid to use it in cases unfit for chloroform or ether. I would like to ask of Dr. Chassaignac if he has recently looked up the mortality? The mortality in the old tables is very high. In 1902, while assisting Dr. Parham, Dr. Jacoby and myself collected statistics and found the mortality to be very high. As to the technic, the simplest way would be to go in a direct line between the tips of the spinous process, though personally I prefer the oblique method. There is one point that I would like to bring out, which is that it is not safe nor humane to insert the needle unless the skin has been previously cocaineized. The method is not suitable to hysterical individuals, especially ignorant Italians. This is also true of any analgesia without un-

consciousness. The highest operation that I have performed with it was a colostomy.

DR. GELPI: I have used spinal analgesia in a large number of cases, and have had uniformly good results. I notice during the discussion that nothing was said regarding shock or rather the absence of shock, following this form of analgesia. I believe that in all cases of operations below the waist line, when shock is to be feared, this method should have the preference. I have used cocain and more recently stovain, and found practically no difference in the after-effect. When using cocain, the head should be kept well elevated, in order to prevent the severe headache which has been noted at times.

DR. SALATICH: Dr. Morton, at the time that the A. M. A. met in this city, in 1903, performed a gastrostomy. Used spinal anesthesia.

DR. A. C. KING: I would ask why it is not used in children? And again, why they do not cocainize the skin, though the normal skin does not always require cocainization?

DR. PARHAM: During the A. M. A., in 1903, Morton, of San Francisco, who had, up to that time, done over three thousand spinal injections, operated upon a case for me, doing a gastroenterostomy, under spinal analgesia with tropa-cocain. Through some mistake of the nurse, who put up the powders, this patient got an overdose, nearly dying on the table from the failure of the heart action. This was the only case I know of where the result was so nearly fatal. I have not, by any means, abandoned the method, but very seldom use it, as my anesthetists give ether with such satisfaction and safety. It has a special field of usefulness in genito-urinary and rectal surgery. I found it especially satisfactory in a case of prolapse of the rectum where the abdomen was opened and the rectum suspended from the abdominal muscles. Here the voluntary assistance of the patient, enabled me to determine how much slack was to be taken up, a great advantage. In operations on patients subject to severe shock, this form of analgesia is especially advantageous, as we may operate without increasing the shock, the centripetal impulses being blocked off by the cocain.

Klapp, one of Bier's assistants in Bonn, made some interesting experiments on dogs, showing the value of cocain in preventing

shock. Dogs shot at 30 meters with small shot were so shocked that they immediately fell and did not get up. Other dogs, whose spinal canals were injected with cocain and adrenalin solution, shot at the same distance, fell, but got up immediately and ran off.

Wainwright, who practices in the coal fields of Pennsylvania, called special attention to the value of the spinal analgesia in preventing shock in accident surgery.

DR. CHASSAIGNAC (in closing): The 800 cases cited in my paper were those of Drs. Delaup, Gelpi and myself; the great majority of the punctures were made by Dr. Delaup. I would furthermore state that I purposely omitted details as they are probably known to all. Concerning the line of puncture, I mentioned that we usually go in a slightly oblique direction and not, as Dr. Lazard, in a direct line. In reference to the statistics, I have looked them up and specifically mentioned in my paper that I had no time to collect them properly. This requires a great deal of care and work, to sift each individual case, as cases may be repeated. The work was too colossal and I therefore left it out. Regarding women, especially hysterical, and the patient seeing what is going on can be best illustrated by a story that may cover both points. In the beginning I thought so too, especially if they were nervous, but now we have got over that. Now as to the story: A young lady, anemic and below par, suffering with hemorrhoids, with fissure, had the method explained to her and the decision rested with her; she agreed to try it. During the course of the operation and afterwards, I had repeatedly asked her if she suffered any inconvenience, and she replied that she regretted only one thing, that she could not see what was going on. As children do not keep still, and can not understand, it is scarcely applicable to them, for they are too young to reason. The principal points have been brought out, and I wish to thank those who have participated in the discussion. We occasionally anesthetize the skin with Schleich's solution or sterile water; but the fact that Dr. Delaup wishes me to bring out in response to Dr. Perkin's question, is that there is nothing brutal concerning the puncture, especially if you know how to do it.

Communication.

AN AMERICAN SCHOOL OF TROPICAL MEDICINE.

FORT WARREN, BOSTON, MASS., Dec. 10, 1908.

A REPLY to the Editor of the *New York Medical Journal*.

The learned Editor of the *New York Medical Journal* has taken exception to my paper in the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, for May, 1907, in which a plea for an American School of Tropical Medicine was made and New Orleans suggested as a possible location. He opens his criticism with the following quotation from Sir Patrick Manson: (1) "A great deal has been said about studying the diseases (of the tropics) where they arise, but the tropics where the steaming heat knocks the energy out of the Europeans, and where you feel inclined to sleep every hour of the day, and can't look down a microscope without a drop of sweat obscuring the eye piece, is no place for study."

Now Sir Patrick Manson is a great man, and the world is greatly indebted to him for his studies made in the tropics, which have advanced our knowledge of several diseases, but he surely has overpainted the picture in the remarks quoted above. He did not make his studies while asleep or partially asleep, nor while looking into a microscope, the eye-piece of which was obscured by a drop of sweat. There are difficulties surrounding laboratory work in the tropics, but the advancement of our knowledge of the diseases peculiar to the warmer portions of the globe have been made almost entirely by men working in the tropics. The mosquito malarial theory was developed and demonstrated in India, by Ross. The mode of transmission of yellow fever was worked out in the suburbs of Havana. Koch learned the cause of cholera while working in Egypt and India. The best work regarding plague has been done in India. The method of the transmission of dengue has been studied in the Philippines, confirming the work done by Graham in Asia. A new *Filaria* has been discovered in the Philippines. Trypanosomiasis in its various forms has been worked out in Africa. The laboratory maintained by our government in the Philippines has done some excellent work in hot Manila. It therefore seems that the difficulties of working in the tropics are not insurmountable.

Major B. K. Ashford, whose experience in the tropics has been extensive, in a paper in the *Boston Medical and Surgical Journal*, writing of the conditions in Porto Rico, says: (2) "Were a laboratory of research provided, it would be of incalculable value to the many who to-day have no adequate place where such scientific work can be done; the commission would receive a powerful weapon to advance its ever-widening sphere of action; and perhaps the foundation could be laid for a school of hygiene which would be of value to American as well as to Porto Rican physicians, which may some day contribute to the knowledge of diseases affecting the countries beyond its shores."

Doctor Senn tells us that Professor Ollig, who has charge of the German Hospital at Tanga, German East Africa (a point well within the tropics) has been there for twelve years and has left the colony but twice. In May, 1906, he was active in body and mind, and besides doing the surgery, did the laboratory work also.

The Editor of the *Journal of Tropical Medicine and Hygiene*, who has had an extended service in the tropics, in an editorial on the subject of "An American School of Tropical Medicine," says (3): "The question as to whether the school is to be situated in New Orleans or New York may not be a matter of vital interest from a scientific point of view, but for the sake of the patients under treatment there can be no doubt that they would be under more favorable conditions for recovery in the more northern city." We grant that there would be advantages from a therapeutic point of view in New York during certain seasons, but the summers there are most trying and the winters are anything but pleasant. A school established in New Orleans would not draw its patients from northern points, but would obtain its clinical material from the surrounding country and from the vessels which make that port. Few, if any, of the patients would be able to reach a northern point for treatment, and they would certainly receive better treatment in a hospital designed solely for the treatment of tropical diseases than in a general hospital.

An officer of the Army who is a teacher, and who has done considerable work in the tropics, says: "I think there is no doubt but that New Orleans is the place (for a school of tropical medicine) particularly as Tulane is a progressive institution and is expanding all the time and having a healthy moral growth."

The point which appears to trouble the Editor of the *New York Medical Journal* appears to be heat and humidity, for he says "A location in which the temperature and humidity are not excessive is the place for brain work of any kind." If we grant this we might ask where is he going to find such a locality in the eastern portion of the United States; surely the city of New York does not come within that class during the summer months. The writer feels that he knows as much of the climate of New York as does the gentleman. He has personally studied all of the meteorological records of the State of New York from the first recorded observations down to 1890, and later spent several years in the study of the local conditions of New York City, and I say, without hesitation, that New York City has very little on the score of climate to recommend it. The hot days often begin as early as the first week in May, and last well into the fall. The humidity is generally high. The winters are very unpleasant, cold, raw, and damp days being very frequent. The streets during those months are frequently filled with slush and filth. The rapid changes of temperature are anything but pleasant. The town is crowded and the air bad. The clinical worker will be confined to some building in the congested area where the air is vile. This is New York. It may have a few percent the advantage of New Orleans as regards humidity, and there may be a few degrees difference in temperature.

Were we to consider the location solely with reference to climate, we must go to the Pacific Coast, probably Portland or Seattle, although for a summer climate there are few cities that can compare with Buffalo.

That there is need for such a school should be apparent to any one who has followed our work in the tropics. As proof that there is a demand for such teaching, we have but to recall that there is nearly always one American in each class at the London School.

REFERENCES :

- (1) *New York Medical Journal*, June 8, 1907.
- (2) *Boston Medical and Surgical Journal*, Vol. clvi., p. 421.
- (3) *Journal of Tropical Medicine and Hygiene*, Vol. x, 1907, p. 229.

(Signed) ISAAC W. BREWER

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Straws in the Stream.

For some years past the conditions in medical education have been bubbling in a turbulent pot. From every side has been contributed the spice of criticism, derived not only from the councils of medical patriarchs, instructed legislators, editorial sanctums of medical publications, but, also, from the lay public in and out of print.

These various interests have gradually forced a natural and logical action on the part of organized bodies of men interested in the advance of medical progress and, therefore, in medical education. Here and there example and precept have been set forth by leaders not afraid to point out defects with their pens.

That the influence of these things has been felt is evident by the tendency towards a uniformity in methods of medical education as promulgated by the Council of the A. M. A. One medical college after another has fallen in line and some have raised standards to a point where medical education is placed, at such institutions, in the class of advanced knowledge and obtainable only by the few. More conservative institutions have recognized the necessity of making doctors only of students with educational qualifications and only a few schools are left who offer the degree in medicine to practically all comers. The intelligence in the class-room, the amenities in the college and the gentility of the graduate, all show an approval of the revision which has taken place. The importance, however, attached to the basic branches in medicine has occasioned a certain amount of reflex comment. The *London Lancet* is quoted by the *Journal of the A. M. A.* (October 31, 1908), as noticing the reduction in classes as the result of too much instruction in the fundamental branches: "There is not time," says the *Lancet*, "there is not a possibility of one

man being able to become an experienced clinician, whether in medicine or surgery, and at the same time be experienced in all the laboratory processes which now form so important a part of modern diagnosis and treatment."

The *Journal of the A. M. A.* makes no great comment on this position and only calls attention to the fact that the reaction is coming about, with the idea that in the rearrangement of the curriculum in this country we should be careful to consider these points.

It is interesting, at this time, to quote a contemporaneous editorial in the *Boston Medical and Surgical Journal* (October 29, 1908): "A much more difficult question will be the proper co-ordination between the various subdivisions of what may properly be called a general medical training. Medicine has for many years been disintegrating into its special branches; the great task of the future will be to reintegrate these special fields of study and practice into a system of instruction which will give the medical student a comprehensive, intelligent and practical view of his professional work. The present co-ordination of the subjects of medical instruction is felt in many respects; there is much false emphasis placed on certain branches of teaching and an equal neglect of others. The problem of the proper relation of subjects taught is becoming increasingly insistent, and to this the future dean of a progressive medical college must give a large share of his attention. * * * * * There has, in short, not been a time in the history of medicine when problems of so varied a character have been presented to the leaders of medical thought. It is desirable that no mistakes be made."

These expressions point to an agitation, at least, which must finally result in the adjustment of medical instruction to the needs and purposes for which it must be planned. We must recollect that the past twenty years has developed advance in both medicine and surgery with which it would be almost impossible for any one man to keep abreast and that for the medical student of ordinary ability to acquire all the science and art, as well as the practice of medicine, is an achievement beyond hope of possibility.

International Medical Congress.

The periodic gathering of the world's lights in medicine is announced for this year to be held at Budapest from August 29, to September 14, under the august patronage of the Emperor of Austria, Francis Joseph I. Unusual interest attaches to the gathering because of the atmosphere of medieval Europe to be found in the old city of Budapest, a city so provincial that a few years ago it was unusual to see the modern tourist on its streets. The local color has not changed, although the accommodation for foreigners has advanced with the demand, and the Committee announces that every provision will be made for Congressists.

The languages are announced as English, French, German and Italian. The provisional program has been issued giving eminent authors and exceptional subjects to be discussed. The sections include twenty-one different subjects, with any of which the intending Congressist may affiliate.

It is desirable that all intending to participate in the Congress and to register as members thereof, should communicate as soon as possible with Dr. J. H. Musser, No. 1927 Chestnut Street, Philadelphia, Pa., who is the Vice-President for the United States. Membership fees may be sent direct to Professor Doctor de Elischer, Treasurer of the Congress, at Budapest. The subscription is 25 crowns, or \$5.00.

Defense of Medical Research.

Along with the other good work in medical education undertaken by the A. M. A., there is being prominently noted the effort in defense of medical research. Until now the medical profession has been satisfied to rest upon the evidence of the results which they have obtained in laboratory investigation, as applied to humanitarian purposes and, in the strength of a position supported by millions of lives saved, they have not felt it necessary to attempt any defense of a natural position. ..

The outcrop of hysterical individuals who parade under the banners of antivivisectionists and societies for the prevention of cruelty to animals has led to unreasonable attacks upon the highest principles of research.

There are many individuals associated with humanitarian societies who are practically sane in their purposes and in their methods for the protection of not only the animal, but the human kind from cruelty, but these are those who more than often do their work quietly and accomplish their results without the tom tom and unnecessary parade, for which spectacular demonstration the others often clamor.

It should be unnecessary to make a recital of all the animal experimentation which has been carried on during the past two hundred years, and to bring the history of the results of such step by step down to the broad enlightenment of not only the medical profession, but of the general public itself, as the results of such experimentation. The monkey, dog, rat and rabbit brains have led us to the knowledge of something of psychiatry and the bodies of these animals have brought us to a certain knowledge of many parts of our own.

More might be said, but the point at which the argument here is driven is that from now on all scientific men, including medical men, about to experiment on the lower animals should begin at once to educate the public as to the way in which the experimentation is done. Every person so educated is bound to become a convert and not an antagonist. Much of the hullabaloo against vivisection is derived from the imagination of the incitors of the clamor, who all together have witnessed none of the laboratory work and the principles under which most experimentation is done.

The Council on Defense of Medical Research of the A. M. A. urge that all investigators should publish their work and see to it that the exact details should be given as to anesthetics and procedure, so that when bald descriptions of experimentations are given they should be qualified by the process of protection from cruelty as employed by practically all experimenters on animals.

Finally it may be said that these experimenters themselves are not perverts, and that they are working after a humanitarian result aimed at the perfection of the human kind and its protection from disease—all in all, perhaps, as high a motive as that of the anti-vivisectionists themselves.

The Medical Recorder Extinct.

The *Medical Recorder*, of Shreveport, announces its own demise with the current number for December, concluding the sixth volume of its existence. The usefulness of the *Recorder* and of its amiable and energetic editor, Dr. Oscar Dowling, has not entirely ended as the unexpired subscriptions of the *Recorder* are to be taken over by the *Journal of the Southern Medical Association*, with which Dr. Dowling is already identified as the Secretary of the Association. Whatever the aims and purposes of the *Recorder* may have been, its life has added materially to the medical organization in Louisiana, and as its achievements as well as its results are chargeable to the editor, we wish to congratulate him on what he has accomplished, and no less upon what he may yet accomplish in his field of larger usefulness in the family into which he has introduced his own product for final adoption.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

DR. E. DENEGRE MARTIN, President of the State Society, has appointed the following committees:

COMMITTEE ON CONFERENCE WITH THE PRESS—Dr. George S. Bel, Chairman; Drs. C. M. Menville, Houma; Carroll W. Allen, New Orleans.

COMMITTEE TO ORGANIZE HOUSE OF DELEGATES—Dr. F. W. Parham, Chairman; Drs. A. C. King, C. J. Landfried, New Orleans; J. C. Willis, Shreveport; C. J. Gremillion, Alexandria.

COMMITTEE TO CONFER WITH BOARD OF HEALTH—Dr. J. T. Halsey, New Orleans, Chairman; Drs. Philip Asher, J. A. Storck, George S. Brown, New Orleans; R. McG. Carruth, New Roads.

NEW ORLEANS, LA., December 17, 1908.

To the Members of the Louisiana State Medical Society:

GENTLEMEN:—A meeting of the Southwest Louisiana Clinical Society is announced for January 13, 1909, and a good program is promised by the Secretary. This is a move in the right direc-

tion. The Society seems to be organized on the proper basis for doing the most good and stimulating the discussion of medical subjects among its members. Let us hope that the next meeting will be well attended, and that every member will go home, not only determined to return to the future meetings, but bring every other doctor with him.

Our physicians are not organized, and with very few exceptions the lack of interest manifested in all medical matters is a sad commentary on the profession. It is true that many are far from towns, and in parishes sparsely inhabited, but this does not apply to all. Recently a number of letters were sent to members of the country parishes, asking that an effort be made to organize several parishes into one society, where it was found that too few physicians resided in some of the parishes to make a parish society practicable. To these letters six replies were received, and so far no effort has been made to further the move. There was never a better illustration of this lukewarmness than was shown from every quarter by members of the State Society during the meeting of the last legislature, when our medical bill was pending before both houses, and except for the heroic efforts of a half dozen physicians, it would have failed.

GENTLEMEN, I appeal to you again to make new resolutions, and make a still newer resolution to keep the old one, throw yourselves in the breach and get together. Organization is not only necessary for our own welfare, but absolutely necessary for the good of our patients. We must meet as often as possible, discuss the medical problems of the day, and be prepared at all times to give our patients the best care that can be afforded. Meet together and every man will find his neighbor has some valuable information which would probably have saved a life in the past, had it only been at his command.

Let us begin the new year in the right way, not only with a firm determination of working at home, but of attending the next meeting of the State Society, with a good paper. The house of delegates will be established at that meeting, and the program will go on uninterrupted and every physician will be afforded an opportunity of reading his paper.

Let 1909 be the beginning of a new life in our State medical work, is the wish of

Yours sincerely,
(Signed) E. DENEGRÉ MARTIN,
President.

Medical News Items.

THE SECOND INTERNATIONAL LEPROSY CONFERENCE.—The Secretary-General, Dr. H. P. Lie, announces from Bergen, Norway, that the Second Leprosy Conference will convene at Bergen on Monday, the 16th of August, 1909, and will continue until Thursday, the 19th. The preliminary program has announced subjects as follows: The Consideration of the Geographic Extension of Leprosy; The Forms and Diagnosis of Leprosy; The Causes and Manner of Propagation of Leprosy; The Pathologic Anatomy of Leprosy and the Treatment of Leprosy.

The Conference is to be held under the auspices of the Norwegian Government and His Majesty, Haakon VII, and under the Presidency of Dr. G. Armauer Hansen, Physician-in-Chief for the Disease of Leprosy in Norway. Professor C. Boeck, of the University of Christiana, is the Vice-President of the organization, and the membership includes a distinguished group of Norwegian physicians.

Further announcements with regard to the Conference will be made from time to time. All interested are urged to address the Secretary-General, Dr. H. P. Lie, at Bergen, Norway.

PRESIDENT ROOSEVELT'S RECOMMENDATION APPROVED BY AMERICAN MEDICAL ASSOCIATION.—President Roosevelt's recommendation in his message to Congress, that there be a redistribution of certain government department bureaus for the purpose of unifying the national health administration, has been approved by the American Medical Association, through its committee on legislation. The committee stated that the President's resolution is in consonance with the views long entertained and expressed by the organized medical profession.

NEGRO CONGRESS ON TUBERCULOSIS.—One of the important steps in the campaign against tuberculosis, which is being at present waged with especial vigor throughout the South, is the Negro Congress on Tuberculosis, which was held at Tuskegee, Ala., from December 14 to 19. The meeting was held under the joint auspices of the Tuskegee Institute, of which Booker T. Washington is the

head, and the National Association for the Study and Prevention of Tuberculosis.

NEW APPOINTMENTS FOR SHREVEPORT.—The following members were appointed by Governor Sanders to serve on the Charity Hospital Board: Dr. W. L. Dickson, President; Drs. J. P. Scott, T. P. Lloyd, Jno. Comegys, Wm. Dalzell; Messrs. J. A. Thigpen and Wm. E. Seay.

The following members were appointed by Governor Sanders to serve on the Shreveport City Board of Health: Dr. A. S. Reisor, Sr., President; Drs. J. F. O'Leary and Louis Abramson.

NEW ORLEANS COLLEGE OF DENTISTRY.—The New Orleans College of Dentistry is now temporarily located at the Hutchinson Memorial and the New Orleans Polyclinic, through the courtesy of the faculties of the Medical Department of the Tulane University of Louisiana.

NEW WARD FOR WOMAN'S DISPENSARY.—The Woman's Dispensary of New Orleans, on Annunciation Street, is raising funds for a new ward, which is much needed.

GRADUATING EXERCISES OF CHARITY HOSPITAL TRAINING SCHOOL FOR NURSES.—Twenty-one young ladies graduated December 8, as trained nurses from the Charity Hospital Training School. The exercises were held in the Miles Amphitheater. The opening address was delivered by Dr. E. S. Lewis, which was followed by the report of Sister Agnes, directress of the institution. Dr. J. M. Batchelor as chairman of the faculty also read a report. Dr. Isadore Dyer delivered the address of the occasion on "What Constitutes Success." The awarding of diplomas closed the exercises.

TRI-STATE MEDICAL ASSOCIATION.—The officers for the current year of the Tri-State Medical Association (Miss., Ark., and Tenn.) are W. H. Deadrick, M. D., Marianna, Ark., Pres; T. S. Hare, M. D., Vincent, Ark., Vice-President for Ark.; S. W. Glass, M. D., Dublin, Miss., Vice-President for Miss; J. A. Porter, M. D., Ripley, Tenn., Vice-President for Tenn; Eugene Rosamond, M. D., Editor *Memphis Medical Monthly*, Memphis, Tenn., Secretary; J. A. Vaughn, M. D., Memphis, Tenn., Treasurer.

NEW ORLEANS PHYSICIANS HONORED.—Several physicians of New Orleans have been honored by being appointed first lieuten-

ants in the Army medical reserve corps as outlined by the War Department and the President. Among New Orleans men already named are Drs. Edmund Souchon, Louis Favrot Reynaud, Paul Emile Archinard, Rudolph Matas, Isadore Dyer and J. J. Archinard.

The idea of the President and the War Department in organizing this medical reserve corps and giving the appointees the rank of first lieutenant is to form, in time of peace, a competent body of physicians who could do service in the field in the event of war. The appointment carries no salary, and is, to a great extent, honorary, but in time of war it is the intention to give the appointees the highest possible rank in the volunteer service.

ANTI-TUBERCULOSIS CLINIC.—The following are announced as attendants in charge of the free clinic of the Louisiana Anti-Tuberculosis League on Tulane Avenue. Male Service: In Charge, Dr. E. L. McGehee; Assistants: Drs. P. B. McCutcheon, George S. Brown, I. H. Levin and M. T. Lanaux. Female Service: Drs. Sara T. Mayo and Edith Loeber. Children's Service: Drs. J. G. Dempsey, F. Hatley, A. O. Hoefeld. The following are consultants: Drs. G. S. Bel, W. J. Durel, R. Chilton, A. L. Levin, O. Joachim, A. I. Weil, A. B. Brown, J. A. Storeck, S. K. Simon, J. N. Roussel, E. M. Hummel, E. D. Fenner, J. F. Oechsner, E. S. Hatch, J. A. Danna and Urban Maes.

DELGADO MEMORIAL HOSPITAL DEDICATED.—The new Delgado Memorial, the latest addition to the New Orleans Charity Hospital, was opened with due ceremony on Saturday, December 19, with a large attendance of hospital officials, physicians, honored citizens and others interested in the occasion. Dedicatory addresses were appropriately delivered by the Rev. Beverly Warner; the architects, Messrs. Crosby and Henkel; Dr. E. S. Lewis, Vice-President of the Hospital Board; Mayor Martin Behrman; Mr. L. E. Valloft, for the Hospital Board; Dr. R. Matas and Dr. L. G. LeBeuf, for the medical profession. Dr. Matas particularly and effectively related the history of the philanthropic bequest and eulogized the donor who had made the structure possible.

The Delgado Memorial, just completed, has been erected and equipped at a cost of about \$200,000, and donated by Mr. Isaac Delgado in memory of his uncle and aunt, Mr. and Mrs. Samuel Delgado. With 150 beds and complete surgical equipment, this

addition for women and children will relieve the present congestion in the older hospital buildings.

PERSONALS.—Dr. R. M. Butler, of Liberty, Miss., has been elected Mayor of that town.

REMOVALS.—Dr. I. I. Gill has moved from Fremont, La., to Dodson.

Dr. G. McG. Stewart from Batchelor, La., to Laurel Hill.

Dr. I. D. Lemoine from Cottonport, La., to Plancheville.

Dr. Adrian A. Landry from Paincourtville, La., to Plaquemine.

MARRIED.—Dr. Benjamin W. Inman, of Williamson County, Miss., and Miss Gertrude Ozene, of New Orleans, were married December 11, 1908, at the residence of Rev. Dr. Geo. Summay.

Dr. H. C. Armstrong, of Silver Creek, Miss., and Miss Annie Freeman, of Hazlehurst, were married on December 10, 1908, at the residence of the bride's mother.

Dr. Geo. K. Pratt and Miss Nina Laroussini, both of New Orleans, were married December 10, 1908, at the residence of the bride's parents.

Dr. Alvin Sweeney, of Lake Arthur, La., and Miss Rilla Ingram, of Wichita, Tex., were married December 3, 1908.

Dr. R. J. Mainegra, Jr., and Miss Louise Merz, both of New Orleans, were married on November 24, 1908.

Dr. Fergus A. Mahoney and Miss Mamie Lee Maguire, both of Fayetteville, Arkansas, were married on December 3d, 1908.

Dr. Washington Barber and Miss Catherine Newell Simrall, both of Vicksburg, Miss., were married November 25, 1908.

Dr. A. B. Gaudet, of New Orleans, and Miss Clara M. Mathews, of Philadelphia, were married on December 22, 1908.

DIED.—Dr. Ira E. Shute, a prominent physician of Opelousas, La., died on December 4, 1908, at the age of fifty-eight years.

Dr. David M. Lines, formerly of New Orleans, died on December 7, 1908, in Tampico, Mexico.

TULANE NOTES.

A. M. A. MEDICAL CURRICULUM.—In the Committee of one hundred to prepare a standard medical curriculum, Tulane is represented in the section on Physiology and Physiological Chemistry

by Professor Gustav Mann; Pharmacology, Toxicology and Therapeutics by Professor John T. Halsey; Medicine, including Pediatrics and Nervous and Mental Diseases, by Professor George Dock, who is Chairman of this section; Surgery, General and Special, by Professor Rudolph Matas; Obstetrics and Gynecology, by Professor Ernest S. Lewis, and Dermatology and Venereal Diseases by Professor Isadore Dyer.

Dr. O. L. Pothier was made Associate Professor of Pathology at the December 21st meeting of the Tulane Board.

THE EXTENSION COURSE OF WEDNESDAY NIGHT LECTURES at the Hutchinson Memorial, open to all medical students and members of the medical profession, is to be continued throughout the session.

In this course the Faculty announces a lecture on "*Evolution and Human Anatomy*," to be delivered by Professor Stanford E. Chaillé, M. D., on January 27, 1909, to all the students of the Medical Department; the profession is especially invited on this occasion. Further lectures are to be announced in February, by Professor G. Farrar Patton, of the Polyclinic, Professor W. H. Dalrymple, of the Louisiana State University, Dr. J. H. White, of the U. S. P. H. & M. H. S., and Major George G. Earl, of the New Orleans Sewerage and Water Board.

THE BOARD OF THE SHREVEPORT CHARITY HOSPITAL has selected the following staff: Dr. G. B. Lawrason, Chief Surgeon; Dr. I. M. Calloway, Resident Surgeon; Dr. A. A. Herold, Assistant Surgeon and Pathologist—all distinguished graduates of Tulane.

ANNOUNCEMENT BY THE NEW YORK MEDICAL JOURNAL.—The *New York Medical Journal* announces a new department of interest to medical students including examination papers of different State Boards, and notices of possible openings for young physicians recently graduated.

Dr. E. C. Day, Tulane, 1907, has a *locum tenens* internship at the Good Samaritan Hospital at Portland, Oregon

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Paraffin in Hernia. By CHARLES C. MILLER, M. D., Oak Printing Co., Chicago, 1908.

This little volume will prove a boon companion to any one desirous of adopting this mode of treatment. This method, apparently simple, is not looked on with favor by the surgeon, as it is too hazardous, the injections being made as it were in the dark.

The efficacy of the injections is due, it is claimed, not only to the plugging action of the paraffin, but also by the circulatory disturbance produced, resulting in the sticking together of the walls thereby obliterating the patency of the sac, one of the essential features of a radical cure.

LARUE.

Hydrocarbon Prosthesis. By F. STRANGE KOLLE, M. D. The Grafton Press New York, 1908.

This cosmetic branch of surgery is presented in a thorough manner by Kolle. It has a very limited field and should not be attempted but by very experienced hands. We are familiar with the good results at times obtained on the face especially by such men as Gersuny, Eckstein and a few others. The perturbed physical condition of castrated individuals has also been ameliorated by the use of paraffin in creating an artificial testicle. Bevan, at the meeting of the Clinical Surgical Society held recently in Chicago to which the reviewer was an invited guest, uttered a word of warning against the ultimate danger of paraffin injections. He cited cases of paraffin tumors about the face which, in one particular instance, had given the bearer a most unsightly appearance and what is still worse, had left her in an irremediable plight.

LARUE.

Publications Received.

LEA & FEBIGER, Philadelphia and New York, 1908.

Progressive Medicine. Edited by Hobart Amory Hare, M. D., assisted by H. R. M. Landis, M. D. Volume X, No. 4.

MOFFAT, YARD & CO., New York, 1908.

Surgical Memoirs and Other Essays, by Jas. G. Mumford, M. D.

WM. WOOD & CO., New York, 1908.

The Medical Record Visiting List for 1909.

P. BLAKISTON'S SON & CO., Philadelphia, 1908.

The Physicians' Visiting List for 1909.

Vaccine Therapy and the Opsonic Method of Treatment, by R. W. Allen, M. D., B. S., London (Second Edition).

Dictionary of Medical Treatment for Students and Junior Practitioners, by Lathan, M. A., M. D., Oxon., M. A., Cantab., F. R. C. P., London.

THE REBMAN COMPANY, New York, 1908.

The Surgery of the Ear, by S. J. Kopetzky, M. D.

C. V. MOSBY & CO., St. Louis, 1908.

A Handbook of Suggestions; Therapeutics, Applied Hypnotism, Psychic Science, by Henry S. Munro, M. D. (Second Edition).

Gonorrhea in Women, by Palmer Findley, M. D.

Arteriosclerosis: Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis, and Treatment, by Louis W. Warfield, A. B., M. D., with an introduction by W. S. Thayer.

MISCELLANEOUS.

Woman: A Treatise on the Normal and Pathological Emotions of Feminine Love, by Bernard S. Taimey, M. D. (*The Medical Council*, 1908.)

Transactions of the American Surgical Association, by Richard H. Harte, M. D. (Wm. J. Dornan, Philadelphia, 1908.)

The Table of the Microbes; Nature's Fund for Pure Water; A Clear Description of the Methods of Sewage Disposal. Publications of the U. S. P. H. and Marine Hospital Service, October, 1908. (Government Printing Office, Washington, D. C.)

Transactions of the American Otological Society. Forty-first Annual Meeting. Vol. XI, Part 1. (Mercury Publishing Co., Massachusetts, 1908.)

Transactions of the Sixth Annual Conference of State and Territorial Health Officers with the U. S. P. H. and Marine Hospital Service. (Government Printing Office, Washington, D. C., 1908.)

Practical Points in Anesthesia, by Frederick-Emil Neef, B. S., B. L., M. L., M. D. (Surgery Publishing Co., New York, 1908.)

Helpful Hints. (The Abbott Alkaloidal Co., Chicago, 1908.)

Reprints.

Splenectomy, by G. Ben Johnston, M. D.

Psychotherapy: Its Scope and Limitations, by Chas. K. Mills, M. D.

The Cerebral Centers for Taste and Smell and the Uncinate Group of Fits, Based on the Study of a Case of Tumor of the Temporal Lobe with Necropsy, by Chas. K. Mills.

Uretro-Vesical Implantation: A New Method of Anastomosis, with Report of Cases, by R. L. Payne, Jr., M. D.

Extrait du Bulletin de l'Académie de Médecine, Sur un Mémoire, de M. Berlioz, Concernant la Désinfection des Livres Fermés, par M. Lucas-Championnière.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR NOVEMBER, 1908.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	11	6	17
Intermittent Fever (Malarial Cachexia)	2	2	4
Smallpox.....			
Measles			
Scarlet Fever.....	1		1
Whooping Cough.....	2		2
Diphtheria and Croup.....	5	1	6
Influenza	3	1	4
Cholera Nostras.....			
Pyemia and Septicemia	2		2
Tuberculosis.....	33	25	58
Cancer.....	26	1	27
Rheumatism and Gout	1	1	2
Diabetes	2	1	3
Alcoholism	3		3
Encephalitis and Meningitis.....	5	3	8
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	14	6	20
Paralysis		2	2
Convulsions of Infants	4	1	5
Other Diseases of Infancy	21	4	25
Tetanus	2	4	6
Other Nervous Diseases	1	1	2
Heart Diseases	53	34	87
Bronchitis.....	4	2	6
Pneumonia and Broncho-Pneumonia.....	17	30	47
Other Respiratory Diseases	6	1	7
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach	8	9	17
Diarrhea, Dysentery and Enteritis.....	21	15	36
Hernia, Intestinal Obstruction.....	3	1	4
Cirrhosis of Liver.....	3	2	5
Other Diseases of the Liver	2		2
Simple Peritonitis	4	1	5
Appendicitis.....	3	2	5
Bright's Disease	30	18	48
Other Genito-Urinary Diseases.....	5	2	7
Puerperal Diseases	5	4	9
Senile Debility	11	2	13
Suicide	7		7
Injuries.....	23	23	46
All Other Causes.....	15	11	26
TOTAL.....	360	216	576

Still-born Children—White, 21; colored, 25; total, 46.

Population of City (estimated)—White, 258,000; colored, 93,000: total, 351,000.

Death Rate per 1000 per annum for Month—White, 16.74; colored, 27.87; total, 19.69.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.13
Mean temperature 64.
Total precipitation 0.69 inches.
Prevailing direction of wind, southeast.

New Orleans Medical and Surgical Journal.

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FEBRUARY, 1909.

No. 8

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Report of

1. A Case of Pectoral Heart with Malformations and Partial Transposition of its Vessel Trunks. 2. A Case of Fibrinous Tracheo-Broncho-Pneumonia Due to the Pneumococcus.*

By M. COURET, A. M., M. D., New Orleans, La.

(From the Pathological Laboratory of the Charity Hospital, New Orleans.)

Congenital displacements, malformations, and transpositions of the heart, occurring separately or conjointly, are not uncommon; but in the literature on the subject, I have been unable to find a case recorded similar to this one.

The cases reported by Goode (1), Lannelongue and Hickmann (2), especially the former, resemble the present one in some points, but in others they vary from it.

The same can be said of fibrinous casts of the bronchi: Numerous cases are reported following both acute and chronic conditions, but no reference is made of a single instance, where the pneumo-

* Read before Orleans Parish Medical Society, October 24, 1908.

1. *Virginia Medical Semi-Monthly*, 1904, p. 555.

2. *Transactions Pathological Society, London*, 1869, Vol. XX., p. 88.

coccus alone, was responsible for the production of a pseudo-membranous pellicle extending from the cartilages of the larynx to the terminal bronchi and inciting a lobular pneumonia with an exudate extremely rich in fibrin and poor in epithelium.

CASE 1. P. S. 20 years, a painter. Family history negative. Previous history: Used alcohol five months before present illness. Had whooping cough when very young; measles at the age of six; gonorrhea four years ago; phimosis when admitted; cyanosed since birth.

Present illness: Has been ailing five months with swelling of both feet, which gradually increased until he became anasarclous, and died on June 29, 1907.

AUTOPSY 2409. A white male, well nourished; body length 160 cm.; pupils equal 5 mm.; sclera white; rigor mortis marked; lymph nodes not palpable.

The sternum is short, but otherwise shows no abnormalities. The arch formed by the cartilages of the lower ribs is exaggerated.

Protruding through the umbilical ring, which is 7 cm. below the sternum is a brown colored tumor about 10 cm. in length by 6 cm. in breadth, at the apex of which is the navel. The heart is easily outlined through its thin walls.

On opening this tumor the parietal pericardium, which is greatly thickened, is found to line the sac and firmly adhering to it. The pericardial cavity is filled with a clear fluid. The heart shows itself on the median line, its apex 15 cm. below the sternum.

The posterior portion of the parietal pericardium rests on and is adherent to the diaphragm, whose anterior pillars are attached to the abdominal wall below the umbilical ring.

The visceral pericardium is thickened and milky and bound down to the parietal pericardium by fibrous bands; anteriorly at the apex and posteriorly at the base.

Heart.—The heart measures 15 by 13½ cm.; its apex is elongated. Its right auricle is well developed, especially the pectinate muscles. Only one small vein is found opening into it. The foramen ovale is patent; a finger can easily be passed through it. The tricuspid valve appears normal and measures 9 cm.

The right ventricle contains a few dark red clots; no distinct thrombi found. The myocardium measures 9 mm.; its color is yellowish red. There is an opening 15 mm. in diameter through

the interventricular septum communicating with the left ventricle. This opening is situated immediately below the aortic valve and aorta, which vessel leaves the organ from this ventricle. The aortic valve measures 7 cm.

Another vessel measuring 3 cm. emerges from this same ventricle to the left of the aorta and separated from it by a septum of myocardium. This septum divides the upper portion of the ventricle into two compartments. The vessel presents at its orifice two badly formed segments of valve of the semilunar type; both segments are reversed, their concave sides pointing towards the ventricle. This vessel is the pulmonary artery. The left auricle is very small and its muscles poorly developed. Three very small pulmonary veins empty into it. The auriculo-ventricular opening allows the passage of three fingers. The mitral valve measures 10 cm. and its segments appear normal. The wall of the left ventricle measures 1 cm. Black clots almost fill the cavity and numerous thrombi are found at the bases of the papillary muscles. There is no vessel leaving this ventricle; the blood coming into it, passing out through the interventricular opening to the right ventricle.

Through an unfortunate occurrence the vessel trunks were destroyed by an assistant in removing the lungs, but from some portions recovered, we believe that circulation was carried on as follows: The superior and inferior vena cava anastomosed at some point above, and emptied their contents into the right auricle through the only vein found. This vein was very small.

Part of this blood went to the right ventricle through the tricuspid valve and part to the left auricle through the patent foramen ovale.

The blood from the three pulmonary veins entering the left auricle became mixed with the blood entering this auricle through the foramen ovale and as the muscular development of the right auricle was very much greater than that of the left, the blood that came to this auricle, viz: the left, followed the point of least resistance; that is, through the mitral valve into the left ventricle.

It will be seen that more blood entered the left ventricle than right and this accounts for the exaggerated discrepancy between the size of the left and right ventricles.

From the right ventricle the blood was expelled through two

vessels, viz: The aorta to the general circulation, and the pulmonary artery to the lungs.

From the left ventricle only one exit can be found, namely, through the interventricular opening into the right ventricle and out through the aorta, the blood becoming mixed a second time.

If we study carefully the position of these abnormal openings and the peculiar arrangement of the septa, walls and vessels, and consider the relative amount of power from each ventricle, it is probable that the bulk of blood from the left ventricle was pumped out through the aorta, and the blood from the right ventricle found its way out through the pulmonary artery and aorta. From the defective structure and small caliber of the former vessel, we concluded that the ductus arteriosus was patulous, and that some blood from the aorta found its way to the lungs through this channel.

Lungs. Both pleural cavities are filled with a clear fluid. The right lung is collapsed and adherent at its apex and posteriorly by many old and a few recent adhesions. Its surface is gray. One section dark red, dry and hard, except for a slight amount of blood. and a little crepitation in a small area in the upper lobe. Left lung, gray color. On pressure air and blood exude.

All other organs were in their proper positions and revealed nothing bearing directly on the case.

CASE 2.—C. J., colored male child, age 3 years, admitted to the Charity Hospital June 20, 1907, and died June 21, 1907.

Family and previous history not obtainable.

Present illness: Patient had been ill two weeks. Nothing else appertaining to it could be found out.

Clinical History: The most salient points were dyspnea, fauces and tonsils red and inflamed.

Lungs.—Small patches of dullness scattered over both lungs and mist rales were heard.

The temperature ranged between 100.2° and 102.1°.

AUTOPSY 2403.—Was held on June 21, 1907, at 1:30 p. m., six hours after death. Body claimed and only partial necropsy was held.

A colored male child, poorly nourished, sclera white, pupils equal, and measured 3 mm. Rigor mortis was not well marked. Cervical lymph nodes palpable.

The usual median line incision was made and the lung, trachea and larynx removed.

Tracheotomy had been performed and the incision noted below the cricoid cartilage. The pharynx and larynx were carefully examined and found red and edematous, with some few whitish spots about the vocal cords. The trachea was laid open and the incision carried through the division of the bronchi as far as possible.

Below the tracheotomy was a thick pearl gray pellicle attached to the mucous membrane by delicate bands of fibrin. These could be readily broken, the detached pseudo membrane giving a perfect cast of the entire tract, extending as far into the bronchi as could be followed. The larger and medium portions of this cast showed a distinct lumen, while the smaller ones appeared solid. The mucous membrane below the cast was found red and edematous.

The pleural cavities were dry, and the parietal and visceral pleuræ smooth and clear.

The external surface of both lungs showed areas which were hard, dark red to gray in color and did not crepitate on pressure (pneumonic.) Surrounding these were elevated and easily compressed ones (compensatory emphysema), and again dark blue spots of collapsed lung tissue (atelectasis).

The cut section showed bright red and gray elevations, varying in size from two to three c. m. in diameter, and surrounded by collapsed and crepitating areas. On pressure there would exude some air, a small amount of blood and small comedo-like substances from the pneumonic parts.

Smears made from the exudate were found to contain many pneumococci of Frankel-Woshelbaum; no other organisms were found.

Microscopically.—All bronchioles and terminal bronchi were filled with an exudate of fibro-mucus, some red blood cells, desquamated epithelium and granular detritus.

All alveoli in pneumonic areas contained an exudate of some sort; some were filled with fibrin almost exclusively; others with fibrin, red and white blood cells and a few epithelial cells, but most of them were so choked with leukocytes as to overshadow other products that may have been present. The mass of desquamated epithelium so common in the exudate of lobular pneumonia was notably absent and the picture suggested gray hepatization of lobar pneumonia.

Tumors of the Penis and Testes, with Special Reference to Malignancy, and a Statistical Survey of Cancer in the Charity Hospital.*

By JULES LAZARD, M. D., New Orleans.

In the assignment of the subject, tumors of the genito-urinary apparatus, the chairman has requested me to take the subject of the male organs. As a subject of this character would assume great size, out of proportion to the time allotted, and rather than sacrifice subject matter, I deemed it advisable to exclude the bladder, prostate, vesicles and vas from the discussion, and to content myself with a consideration of the tumors of the penis and testes, with special reference to malignancy.

As general working rules we may assume.

1st. That patients suffering from malignant growths in any region of the body present themselves to the hospital for treatment when the disease has made great inroads into their general health.

2nd. When cachexia is present.

3rd. When the adenopathy of carcinoma is more or less marked.

4th. That operative procedure must be in all cases of a radical sort.

5th. That statistics do not serve as a fair basis in passing final judgment of the benefit of operative procedure.

In considering epithelioma of the penis, eight cases of the radical operation and two cases of the partial operation or amputation will form the basis of that section of the paper.

In considering tumors of the testes, reference will be made to some 40 cases of solid enlargements treated in the last 5 years. An attempt will be made to relate the difficulties of accurate diagnosis, rational treatment and skillful prognosis when dealing with an ordinary solid growth of these glands. To lay down some rules to assist us in avoiding errors, which must creep in unless we are suspicious of the true character of the growth.

I. In the records of the Charity Hospital we find that the statistics of malignant growths in all regions of the body give the following digest:

1891-1900—White, 1,027; colored, 658; deaths, 398.

Penis.—White, 18; colored, 21. Testes.—White, 11; colored 4.

* Read before Orleans Parish Medical Society, November 14, 1908.

Patients admitted, 81,686.—

Cases of malignancy, 1,685, or 2.06%.

1,685 cases gave 39 of penis, or 2.30 %.

1,685 cases gave 15 of testes, or .89%.

11,621 death, 398 of malignancy, or 3.42%.

1,685 cases, 61% white, 39% colored.

1900 census, 287,104, of which 73% was white and 27% colored.

For the seven years of this decade, the same source gives the following:

1901-1907.—White, 1.017; colored, 545; deaths, 312.

Penis,—White, 19; colored, 22. Testes.—White, 9; colored, 7.

Patients admitted, 51,510.

Cases of malignancy, 1,562, or 3.02%.

1,562 cases gave 19 of penis, or 2.60%.

1,562 cases gave 16 of testes, or 1.00%.

8,427 deaths, 312 malignancy, or 3.70%.

1907 Estimate by City Board of Health—

258,000 white, or 73%.

93,000 colored, or 27 %.

1562 cases of cancer, 1,017 white, or 65%.

545 colored, or 35%.

There is practically the same tendency to malignant growth in both races.

There has been an increase of almost 1% of cancer cases (meaning carcinoma and sarcoma) over the preceding decade, which means that cancer has increased in our locality, or our diagnoses of cancers are more readily made. I am inclined to believe the former, i. e., cancer is on the increase.

The histories of 18 cases of cancer of the penis furnish the following ages:

3 in the 4th decade (all 38 years); 7 in the 5th decade, 2 in the 6th decade; 5 in the 7th decade; 1 in the 8th decade.

Fifty years being the average in these 18 cases from which I was able to obtain satisfactory histories.

In my cases (10) the average age was 51.6 years, the youngest was 38, the oldest, 69 years.

II. WRITER'S CASES OF EPITHELIOMA OF THE PENIS.—CASE 1. P. F., Kajin, 42. Resident of Berwick, La.; laborer; married. Has suffered from his earliest recollection from an adherent pre-

puce. Three months before admission he noticed an ulcer on the dorsum at the point of junction of prepuce and glands. Admitted in 1901. At time of admission the prepuce could be incompletely retracted and a small growth was found. Pathologist reported epithelioma from a section. Some slight inguinal (left side) enlargement. Penis amputated about $\frac{3}{4}$ inch behind the corona, flap operation. Left glands removed; chloroform anesthesia (pre-spinal period). Living and in good health.

CASE 2.—S. C., Chinaman; 50; laborer; opium fiend. Operation May, 1905. Unable to obtain a definite history of exact point of initial growth, except that it began on the glans. Examination showed the glans destroyed for 3-5ths of its thickness, the meatus almost destroyed by ulceration, the body of the penis destroyed about 1-6th of its thickness and $\frac{3}{4}$ of an inch from the pubes. The glands in both inguinal regions enlarged and matted. The scrotum shrunk, with the testes immobilized from adhesions to the tunic. Clinical and microscopical examination, epithelioma. Spinal anesthesia, cocaine. The penis, scrotum, testes and inguinal glands removed. Living Oct., 1907. Have not heard of him since. There is a possibility of the incomplete development of his testes, being due to the opium habit. We were compelled to supply him with burnt opium gum during his convalescence.

CASE 3—Jos. L., 63; Kajan, Sunset, La.; farm hand. Seven months before there appeared a growth beneath the prepuce, at its junction with the corona. On admission there was a large cauliflower growth on the glans and anterior two-thirds of the body. Putrid odor. The ulcer was dry, indurated and bled easily. The prepuce was destroyed at its upper two-thirds, also a great part of the body. Inguinal glands on both sides involved. Clinical and microscopical diagnosis, epithelioma. Operation March 18, 1907. Spinal anesthesia. A Pierce-Gould amputation and removal of glands on both sides. Returned to the hospital in 15 months for an epithelioma of the right cheek. Region of former operation presented no indication of recurrence.

CASE 4. J. R., Irishman, 60; laborer. Six months ago there appeared a growth beneath the prepuce. Has suffered from a mild phimosis. At the time there was a large suppurating, putrid, cauliflower growth of the prepuce, glans and body; the ulceration extending to within $\frac{1}{2}$ inch of the pubes. The glands on both sides

were enlarged, but specially on the left side. Clinical and microscopical diagnosis, epithelioma. Operation March, 1907. Spinal anesthesia, cocain. The penis, scrotum, testes and inguinal glands on both sides were removed. Urethra placed $1\frac{1}{2}$ inches in front of the anus, the usual place in this operation. Recurrence in the left inguinal region 7 months after the operation. It is doubtful that the growth appeared only 6 months before admission, but as it is his statement, it must be included as a part of the history.

CASE 5. Tony P., Italian, 35, laborer, Opelousas, La.. Growth appeared on the glans, has always suffered from inability to fully retract the foreskin. Ulceration began 18 months before. A dorsal incision of the prepuce was made by his physician in Patterson, La., 12 months before, from which he experienced no relief. On admission the character of the growth resembled the preceding case, except there was less odor. The inguinal glands on both sides were enlarged, but more marked on the right side, where they extended into Scarpa's triangle. Operation, April, 1907. Spinal anesthesia, cocain. A Pierce-Gould was done as in Case 3, and the glands of both inguinal regions removed. The right scarpal glands were also removed. Excepting the removal of the scrotum, this was the most extensive operation, also the longest standing case, in this series of cases. The testes were not removed in this case because of the age of the subject, believing that the internal secretion of the testes would be of benefit; case 3, likewise. This subject will be discussed at the close of this section of the paper.

Returned in 5 months with recurrence in both groins, but specially marked on the left side.

In this case the disease recurred rapidly and with equal malignancy. He was the youngest subject, and the clinical observation that malignant neoplasms partake of the activity of the host is well illustrated.

CASE 6. J. S., 44, Filipino, fisherman, resident of the city. The growth appeared on the glans, exact location not ascertainable. Lymph nodes slightly enlarged on both sides. Duration unknown. Penis ulcerated to within one inch of the pubes. Clinical and microscopical examination, epithelioma. Spinal anesthesia, cocain. Penis, scrotum, testes and inguinal glands both sides removed. Operation Sept. 27, 1907. Is well; has gained weight and is working every day.

CASE 7. Sam M., 58. Presented a growth similar to Case 3. Both groins involved. Spinal anesthesia, stovain. Penis, scrotum testes, inguinal glands, both sides, removed. Operation May, 1908. Have not heard of the case since discharge from the hospital, though he is a resident of the city.

CASE 8. Amputation. E. L., Kajin, 39. Berwick, La. Has suffered from an adherent prepuce since earliest recollection. Is a farm hand. About 6 months before admission he noticed a hard, nodular tumor beneath the prepuce. The lymph glands began swelling a short time after. He can not state definitely when they first made their appearance. On admission there was the growth mentioned above; it was not extensive and did not reach much beyond the corona. Spinal anesthesia, cocain. Amputation, flap method. Glands on both sides, which were but slightly enlarged, were removed. Operation November 20, 1907. Have not heard of the case since, though he was instructed to return on the least sign of recurrence.

CASE 9. G. F., 69, Kajin, farm hand, Sunset, La. Was unable to obtain any definite history of duration or exact location of initial ulcer. States casually that ulceration began 1 year ago. On admission he presented a fungating ulcer of glans, and dorsum to half inch of pubes. Glands in both groins enlarged. Clinical and microscopical diagnosis, Epithelioma. Removal of penis, scrotum, testes and inguinal glands on both sides. Stovain, spinal anesthesia. Operation September 8, 1908. Too early to pass judgment.

CASE 10. T. C., 63, Irishman, laborer. Underwent a partial circumcision for adherent prepuce in 1878, which he says on his own initiative, was unsatisfactory. In fact, he attributes his trouble to the dressing used at the time. His present trouble dates back 8 months. To appearances it indicates greater duration. On admission he presented about the condition of Cases 3, 4, 5, 6, 7, except the odor, which was very obnoxious to the patients in the ward, until it was controlled with charcoal poultices. Operation, October 26, 1908. Spinal anesthesia, stovain. The penis, scrotum, and testes removed. The inguinal glands were thoroughly encapsulated, but broken down. The external oblique, inguinal ring and sheath of the femoral vessels on both sides exposed in the dissection. Too early to pass judgment. Man is

presented to-night to exhibit the operation done in six of the preceding cases.

In the 10 preceding cases we have:

Amputations, 2,

Pierce-Gould's, 2

Total removals, 6.

CASE 1. Was living after 7 years.

" 2. Was living after 2 years.

" 3. Had no recurrence in the region in 15 months.

" 4. Recurrence 7 months after operation.

" 5. Recurrence 5 months after operation.

" 6. No recurrence in 15 months.

" 7. Result unknown.

8, 9, and 10, too early to pass judgment.

There was no operative mortality. All cases but one, 1st case, prespinal period, were done under spinal analgesia, cocain or stovain.

From the foregoing report it will be seen that a properly selected operation for cancer of the penis offers some hope for permanent recovery. The chances are increased the earlier the patient seeks relief. As stated in the beginning of this paper, patients seek help from the hospital when the disease has made a profound impression on the general health. Therefore, even if the above results are on the whole satisfactory, we have sufficient reason to believe that earlier treatment would have been of greater assistance and less radical. Kuttner, quoted by Keyes, found a mortality of 40.5% in 58 cases reported from 3 to 29 years.

Keyes (G. U. Diseases, p. 682), says: "Curiously enough, the lymphatic infection seems to stop for a long period at the inguinal glands so that visceral metastases are the exception."

Caspar (G. U. Diseases, p. 185), says: "If no metastases are present a remarkably large number of patients can be cured. Unfortunately, the cases are seldom seen early enough."

Confirming the writings of other reporters, the disorders of the prepuce, phimosis, adhesions, scars, etc., are great causative factors in the production of cancer of the penis. While the operation of total removal seems radical, it is believed that good results can be hoped for only as we eradicate the disease. To paraphrase Prof.

Matas, to attack a cancer with a curette would be similar to attempting to slay a sleeping tiger with an ostrich plume.

In six of the eight cases of removals, the testes and the scrotum were excised. Even considering the internal secretion of the testes, none of these six seemed worse off for having undergone the loss. The removal of the scrotum and testes, while a more mutilating operation, is the more humane one. Case 3 (Pierce-Gould) underwent more physical suffering than any other of the cases. My experience would teach me that no practical good is served by modernizing a Tantalus.

The flap and Pierce-Gould operations are well described in almost any text book of operative surgery. Thiersch places the urethra about one inch and a half in front of anus. I adopted this in all cases of removal.

The complete operation is unsatisfactorily described in most text books, and not at all in others. Therefore I believe it would not be amiss to briefly describe the operation used in six of the cases. In the Gould and complete operation it is recommended that a sound be passed into the urethra to assist in outlining and detaching the spongy from the cavernous bodies. As the disease usually begins in the glans, this part soon shares in the ulceration, the sound must pass through the ulcerating mass into the urethra. For this reason the sound was not resorted to in any case. The spongy body is easily and quickly detached without its assistance.

Operation. Four or five minutes after the spinal injection, the patient is placed in the lithotomy position. The scrotum is split in the raphe into two lateral halves for two-thirds of its lower length. The spongy body is outlined and detached from the cavernous bodies, using scissors. The spongy is clamped with hemostatics and cut across the region of the triangular ligament. It is dissected backwards and entirely freed from the upper bodies. This latter dissection must be clean and complete or difficulty will be experienced in completely detaching the crura of the cavernous bodies when speed is necessary. Second step. A horse-shoe incision is made at the base of the penis over the pubes, and continued over the scrotum, on either side, one-half to three quarters of an inch from the crotch fold and meets the longitudinal scrotal incision one and one-half of an inch in front of the anus. The cords are ligated and cut near the external abdominal rings. The

horse-shoe incision is deepened and the suspensory ligament of the penis cut at its insertion in the pubes. The penis now becomes loose and the crura of the cavernous bodies cut close to the rami of the pubes. A knife is used instead of a chisel, as recommended in the text books, as here is where very rapid and decisive work is necessary. Hemorrhage from the arteries of the cavernous bodies is easy to control with forceps; but the dorsal vein of the penis as it empties into the vesico-prostatic plexus gushes very freely. This is controlled quickly and effectively by a pack of gauze. This is not the place for hemostatic forceps. The penis, scrotum and its contents come away in one piece. The cut edges of the scrotum are united in the middle line up to the pubes. The urethra is trimmed, split into two lateral halves and the mucous membrane sutured to the skin about $1\frac{1}{2}$ inches above the anus. The patient is now placed in the prone position. Third step. The incision at the pubes is continued in inguinal regions. The glands outlined, dissected with scissors always closely hugging them, the finger of the assistant placing and protecting the great vessels of the region. If the scarpal glands are enlarged the middle of this last incision is continued over the region. The gland dissection is the slowest and most tedious part of the operation. The last case, No. 10, required 70 minutes for the complete operation. No catheter was used, except in Case 2. This man removed the catheter whenever it was placed, but healed without any disaster. Since that time we have not used the catheter in after-treatment.

None of the cases suffered from urinary infiltration. None had any subsequent atresia of the new meatus. Pack removed on the third day. Case 9 was out on the 8th day and Case 10 on the 10th day.

III. TUMORS OF TESTES. SYPHILIS AND MALIGNANCY.

In the diagnosis of the solid growths of the testes the surgeon is confronted with one of the most difficult problems in general surgery. There are many diseases which give the same swelling and nodulation, pain or painlessness, symptomatic hydrocele, thickening of the cord, duration, and all being hidden by the scrotum, that becomes almost impossible at times to escape an error.

Error in the diagnosis of testicular tumors means a sacrifice of this organ or useless delay in its extirpation. In some 40 cases my notes permit me to make some general remarks and to

describe a procedure which has assisted me in avoiding a clinical mistake which I feel sure has occurred time and time again.

As a general rule we can take the history of the patient into serious consideration, providing we are careful to elicit a full and truthful account of the disease from which he suffers.. At other times we must step beyond the history and treat the disease for what it may be, as here dogmatism in diagnosis is quite out of place. This is especially true when we have gumma of the testes, a rather favorite place for this deposit. A man may have a gumma of the testis and truthfully from his point of view deny all syphilitic infection, the primary and secondaries having been of so mild a character as to escape his detection. If reference is made to R. W. Taylor's studies (*Medical Record*, 1906) of syphilis reappearing in third generations, by heredity, one need not be surprised that a person can truthfully deny all syphilitic infection and still suffer from the effects of the disease.

This paper is on the malignant diseases of the testes and reference to the statistical table above would indicate that sarcoma has no striking predilection for these organs. On the other hand, gumma has, and it is with some difficulty that a pathologist contradistinguishes a small round cell sarcoma from a true gumma, Hence it is important that the diagnosis be made before the operation or on the operating table.

Pain is a very important symptom in sarcoma of testes when compared to the other tumors, but as in every region of the body its intensity is impossible to determine; each person interprets it in his own way; it is at all times a personal equation. Therefore it is not safe to place too much reliance on a single symptom in making a diagnosis. There are no pathognomonic symptoms here, as we are supposed to have in other regions of the body.

W. S., age 42, slater, resident of New Orleans. Has had a swelling in the right testicle for the last 4 months. To his mind the swelling has more than doubled in the last two months. On examination at the time of admission, patient was in fine physical condition, 5 ft. 8 in., 150 lbs. The right testis was enlarged and nodulated, about twice its natural size, the cord somewhat thickened. No pain. No hydrocele, left testis normal. Denies all syphilitic infection. Sarcoma diagnosed and extirpation sug-

gested. Operation, August, 1902, under infiltration anesthesia. The scrotum injected in line of incision, and cut. The testes came readily in view. The tunica albuginea injected on its convexity and incised, the incision resembling the splitting of the kidney in the dead-house, from convexity to hilum. Examination showed the interior studded almost throughout its extent with yellowish growths which had the consistency of soft rubber. These could be dug out with the handle of the scalpel, leaving a pit after removal. Just two were removed. Diagnosis of syphilis made. Tunica albuginea and vaginalis propria sutured, closing the testes. Man sent to the ward. Iodide of potash begun at once, 10 grains three times a day, increasing a grain at a dose each day. After 15 days he left the hospital, the wound had healed, the testicle healed but reduced in size, smaller and harder than its fellow. This man was told of his condition, and advised to take a full course of antisyphilitic treatment. He was seen 18 months ago and seems in good condition.

As a procedure before final extirpation of this organ, I would advise all surgeons to incise and inspect the interior of this organ, and thus make the confirmatory diagnosis. The anatomy of the interior of the testicles suffers no destruction of the function after its incision for exploration, no more than would the kidney or any other organ.

When gummata of the testicle break down and ulcerate through the scrotum, tuberculosis may be diagnosed. In the *Phagocyte*, now defunct, there is reported a case of tuberculosis of the right testis, with excision. Nine months after removal the man returned to the hospital with the left testicle enlarged. A suspicious eruption of the wrist suggested syphilis. The surgeon in charge at the time asked me to see the case. After a full course of iodide of potash, the left testis resumed its natural form and size.

Sarcoma of the testicle offers a chance of permanent recovery in proportion to the approach to maturity of the character of cell. The mixed types, fibro-sarcoma, and those which are considered clinically as fibroma and histological as fibrosarcoma do not recur as a rule after extirpation. The small round cell sarcoma while dangerous in any region of the body, offers here practically no hope of recovery after removal; the operation is valueless and should not be performed.

W. B., age 41, is well after 6 years from excision of the testis for fibro-sarcoma. J. J. B., age 41, is well after 2 years.

— L., age 32, small round cell sarcoma; extirpation, recurrence, retroperitoneal metastases in 4 months.

H., age 24, clerk in a country store; married, has had gonorrhea, but no epididymitis or orchitis. Testes on right side enlarged; fluctuation elicited, but with difficulty. Says he has the right testicle larger and of different shape than the left side, since he was a child. Says his mother noticed the condition when he was two years old. No diagnosis made, but put on progressive doses of iodide of potash with no result. Operation under infiltration anesthesia. Dermoid cyst was found containing sebaceous matter, spicule of bone and switch of hair. Testicle removed. If the history had been more carefully studied after the administration of the iodide and before operation a diagnosis could have been made.

SUMMARY.

It is possible to make an exploratory incision of the testicle, the same as any other organ, without harm to its structure or function.

In the solid swellings of the testes, unless the attending surgeon is sure of his diagnosis, which is impossible at times, it is not only best, but imperative to administer iodide of potash ten days or two weeks before rendering a final opinion.

In all cases with symptomatic hydrocele, it is advisable to empty the fluid with a trocar before administering iodide of potash, in order that the growth may be more accurately observed.

Before closing, I wish to state that my mission in writing this paper and which I regard as my sole duty is to impress the members present to-night with:

1st. The benefit of iodide of potash in all tumors of testes, and I suppose in other regions of the body. Its judicious use has saved me from many heart-burnings.

2nd. To express a long entertained and well fortified belief that malignancy of the penis, when treated early and radically, offers more hope for permanent recovery than in any other region of the body.

I would be ungrateful if I did not seize this occasion to express my thanks to Dr. G. F. Patton and his department of the Charity Hospital for much valuable statistical information derived from his records.

Tumors of the Female Pelvis.*

By LOUIS PERRILLIAT, M. D., New Orleans.

When the chairman of the Scientific Essay Committee allotted to me the tumors of the female, the field was so broad and the time so short that I was at a loss to decide from what point to attack the subject. The consideration of such a vast subject carries with it the difficulties which assail any mind attempting, in an exhaustive manner, the research of all medical questions. The tendency of the day owing to the rapid and constant evolution of medicine and surgery, is to a division of labor. The spirit of investigation and progress must, therefore, of necessity, move in narrow channels in order that the greatest advancement may be made possible, and that the work should bear fruit, which is the storing of knowledge, which ultimately results in the greatest benefit to the patient.

Next year, 1909, marks the centennial anniversary of a great event in the history of the development of modern gynecology. In the city of Louisville, nearly one hundred years ago, the great McDowell, pioneer gynecologist led the way to general surgeons in opposition to the conservative sentiment of his time, and prepared the way for the development of all intra-peritoneal surgery, with its marvelous capabilities for lessening human suffering and saving life. Numerous other men in different parts of the country have followed the way blazed by him, and in their own respective limited fields of endeavor have contributed to the advancement of this branch of medicine and surgery. In our own midst our distinguished professor of obstetrics and gynecology, Dr. E. S. Lewis, has done his considerable share of pioneer work: The work done in the Charity Hospital ought to compare favorably with that of the best known and equipped hospitals of the North and East, and the burden of this brief contribution will be a study, largely statistical, of the tumors of the female pelvis, coming under observation during the years 1906, 1907, up to November 10, 1908, in this institution. I have chosen these years because the founding of the record department of the Charity Hospital only dates back to 1905, and the research previous to that time is open to many objections.

Of the number of women who present themselves for advice and treatment in the gynecological division, a considerable per-

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centage are amenable only to surgical treatment. This applies to most of the inflammatory conditions and the displacements of the uterus and altogether to the tumors. The charge has been made and apparently with some foundation of truth, that the work in hospitals was exclusively surgical, and that the medical aspect of gynecology has been completely lost sight of. But when we consider that the class of patients that apply to the hospital are bread-earners, and that the rapidity of the cure is a weighty consideration, this charge loses most of its ground. The knife offers them a quick, as well as a certain cure in dealing with diseased ovaries, retrodisplacements, etc.,

Another desideratum is the necessity for accurate diagnosis. The accuracy of the diagnosis is first in this and in every other condition. Rational treatment and success will follow and rest on this attainment and the power to meet indications. Faulty treatment is as fatal to success as defective diagnosis. A twisted pedicle of an ovarian cyst, or solid ovarian growth, a ruptured tubal pregnancy, an incipient malignant disease of the uterus demand surgical treatment.

Among the many ills of women that of cancer of the uterus deserves special notice. The alarming increase of the manifestations of malignancy in these organs calls for the greatest circumspection in their management and demands early diagnosis and prompt extirpation. Cancer is the one condition in which radical treatment finds no place for the physician. It is a disease for the surgeon.

Large fibroids and large cysts are becoming rare; they are not allowed to remain long enough to reach the extraordinary sizes which were not unfrequent a few years back. With improved technique and the ease of supra-vaginal hysterectomy, the invalidism and mortality of these operations has been reduced to a minimum.

In 1906 there were 15 white and 46 colored cases of fibroma of the uterus treated, with a mortality of eight cases, colored. A total of 61, giving a mortality of 13%.

In 1907, there were 57 colored and 14 white treated, with 1 white death and 5 colored. A total of 6 deaths in 71 cases, and a mortality of 9%.

In 1908, there were 57 colored and 4 white cases, with 2 colored

deaths and no whites. A total of 61 cases, with 2 deaths, a mortality of 3%.

A remarkable improvement, indeed, which, in my opinion, is the result of the influence of two sets of causes: First, those resulting from the improvement in technique, from greater experience of the operators, better trained assistants and a better understanding of the after treatment. The advent and the popularizing of the absorbable animal ligature has made ligation of tissue en masse a thing of the past, so that post operative hemorrhage from the slipping of ligatures is now extremely low. A cat-gut ligature has to be placed on the isolated vessel, and a moderate amount of pressure, by breaking the intima of the vessels secures the formation of a blood clot which makes hemostasis prompt and positive.

Greater familiarity of the operator with the pathological anatomy also minimizes the danger of some of the inevitable complications of the operation. The tying and cutting of the ureter, accidentally, is practically eliminated. A few of the deaths in the early part of this series are due to this cause, but none in the latter part. The deaths in 1908 were due to peritonitis, coming from suppurating adnexa, complicating the fibroid. The largest fibroid in the whole series weighed about 55 pounds, and was operated on by Dr. Lewis. We have here the second factor in the diminution of the death rate. The education of the white and colored races as to the low mortality in fibroid operation has induced them to apply for treatment earlier, so that we have smaller tumors to deal with, fewer complications, and a higher percentage of successful operations.

Of the ovarian cysts we have 8 white and one colored in 1906. One colored, died. Mortality 11%.

In 1907, 11 white and 2 colored, with two deaths, one white and one colored. Mortality 14%.

In 1908, 15 white and 11 colored, with 2 deaths, one white and the other colored. Mortality 7%. The white death was due to papillomatous degeneration, while the colored was due to a rupture from a fall, so that six gallons of sero-sanguineous fluid were removed through the incision from the abdominal cavity the ruptured sac found and removed. The abdomen of the patient measured 54 inches in the waist. We can reasonably conclude from a survey of these cases that an ovarian cyst, uncomplicated, has no surgical mortality.

One tubercular cyst was reported and discharged improved.

In the consideration of malignant disease, as the cases are not followed up after they are discharged, the consideration can only have any value in showing the relative proportion of the number of cases occurring in the races.

In 1906 there were:

Carcinoma of uterus, 33 white, 8 died; 21 colored, 4 died.

Epithelioma of vulva, 1 white; 2 colored.

Sarcoma of ovary, 1 white, 2 colored; 1 died.

In 1907:

Carcinoma of uterus, 29 white, 8 died; 24 colored, 2 died.

Carcinoma of vaginal wall, 1 colored.

Cysto-sarcoma of ovary, 1 white.

Fibro sarcoma of uterus, 1 colored.

Sarcoma of ovary, 1 colored, died.

Sarcoma of uterus, 1 colored.

Sarcoma of vulva, 1 colored.

Epithelioma of vulva, 6 colored, 2 improved, 2 stationary, 2 died; 2 white, 2 improved.

Epithelioma of uterus, 1 white, improved.

Sarcoma of ovaries, 2 colored, 1 cured, 1 improved; 1 white, 1 improved.

Sarcoma of uterus, 1 colored, 1 improved.

In 1908:

Carcinoma of uterus, 24 white, 3 died; 15 colored, 3 died.

Epithelioma of vulva, 2 white; 6 colored, 2 died.

Epithelioma of uterus, 1 white.

Sarcoma of ovary, 2 colored; 1 white.

Sarcoma of uterus, 1 colored.

[The great mortality in operation for carcinoma seems to be due primarily to shock. The prolonged anesthesia necessary to perform a complete eradication of the malignant growth, and the hemorrhage which is so difficult to control are the two main factors. One case died recently from urinary infiltration, and sepsis, following injury to the ureter in attempting to do a Wertheim. These unfortunate cases, unless seen very early, before involvement of the parametrium has begun to take place give such a high operative mortality, as to make the surgical intervention almost prohibitive.

[In conclusion, I want to express my thanks to Dr. Patton, the registrar of the Charity Hospital, for the assistance given in looking up these statistics, and to Dr. Gomila for his valuable co-operation in going over them.

STATISTICS:

One cyst measured 53 inches around the abdomen, and patient had to sit up to sleep. Edema of legs. Fopp's twist.
 Echinococcus cyst ovary, 1 colored, cured.
 Teratoma of ovary, 1 white, died.
 Echinococcus cyst of B. L., 1 colored, cured.
 Adenoma of uterus, 1 white, cured.
 Fibroid of uterus, 15 white, 12 cured; 3 stationary.
 Fibroid of uterus, 15 white, 12 cured, 3 stat.; 46 colored, 26 cured; 3 imp., 9 stationary, 8 died.
 Carcinoma of uterus, 33 white, 1 cured, 14 improved, 13 stationary, 5 died; 21 colored, 6 improved, 11 stationary, 4 died.
 Epithelioma of vulva, 2 colored, stationary.
 Sarcoma of ovary. 1 white, cured; 2 colored, 1 improved, 1 died.

Clark reported an echinococcus in April, Hackett in May. No pathological report accompanying. The history of the operation gives a cyst.

Ovarian cysts, 11 white, 8 cured, 1 improved, 1 stationary, 1 died; 2 colored, 1 cured, 1 died.,
 Cyst of B. L.. 4 white, 4 cured; 1 colored, 1 cured.
 Leiomyoma of uterus, 1 white, cured.
 Fibroma of uterus, 14 white, 9 cured, 1 improved, 3 stationary, 1 died;
 57 colored, 38 cured, 3 improved, 11 stationary, 5 died.
 Papilloma of genitals, 3 colored, 2 cured, 1 stationary.
 Bartholin cysts, 1 white, cured; 2 colored, 1 cured, 1 improved.
 Teratoma of ovary, 3 white, 2 cured, 1 died.
 Carcinoma of uterus, 29 white, 2 cured, 5 improved, 14 stationary, 8 died; 24 colored, 1 cured, 7 improved, 14 stationary, 2 died.
 Carcinoma of vaginal wall, 1 colored, improved.
 Cysto-sarcoma of ovary, 1 white, cured.
 Vitro-sarcoma of uterus, 1 colored, cured.
 Sarcoma of ovary, 1 colored, died.
 Sarcoma of uterus, 1 colored, stationary.
 Sarcoma of vulva, 1 colored, cured.
 Fibroids of uterus, 57 colored, 46 cured, 4 improved, 5 stationary, 2 died; 4 white 2 cured, 2 stationary.
 Cystoma, 15 white, 13 cured, 1 stationary, 1 died; 11 colored, 7 cured, 3 improved, 1 died.
 Denior's cyst, 1 white, cured; 1 colored, died.

The white death was due to papillomatous degeneration. The death in the colored was due to rupture from a fall, so that six gallons of sero-sanguineous fluid were removed from the abdominal cavity through the incision. Abdomen measured 54 inches in circumference. One tubercular cyst was reported by Dr. Hackett, and discharged improved.

Tumors.*

By OLIVER L. POTHIER, M. D., New Orleans.

The subject of tumors is one which involves one of the most interesting and to which more study has been given than any in pathology, especially in the last decade. The study of tumors begins almost with that of pathology and to this day is one which remains if not totally, at least to a great part unsolved. Though the history of a great many is fairly well established, yet their cause, nature and development are not well explained or understood. The proof of this is well shown by consulting the different text books on pathology, and almost every one will give a different view as to the cause, classification of tumors. Though each and every one may have special ideas on these subjects, yet we find that nearly all agree in saying that the word tumor has no meaning unless preceded by a qualifying adjective. Several words have been suggested, such as neoplasm, or neoplasia, which, though not accepted by some, have been used by many instead of the word tumor. Again, the tendency of the majority is to ascribe the word tumor only to growths which are autonomous and to cysts.

The definition of a tumor, then, would be a morbid growth which has a tendency to persist or to increase in size, regardless of the adjoining tissues, and which performs no useful functions. Admitting this definition to be exact it does not explain the causes of tumors. The etiology of tumors is not well understood. The scope of this paper will not permit of a lengthy discussion of the subject, and only a few theories will be presented; that of Durante and Cohnheim, which is known as the inclusion theory. Cohnheim emitted the idea that during embryonic development and the specialization of cells, more embryonic tissue than required was formed and that those tissues became included as such in the tissues and remained quiescent, constituting embryonic rests or remains, from which in after life under special conditions not well known yet, they suddenly sprung into activity, producing the different varieties of tumors.

The injury or inflammatory theory was presented as an etiological factor, but though it may be found to explain the origin of certain tumors, yet it does not apply to all and cannot be considered as the sole etiological factor. The parasitic theory has not yet

* Read before Orleans Parish Medical Society, November 14, 1908.

evolved any positive proof which can be adduced as the cause of tumors. Though many tumors have been inoculated into the lower animals, yet there is no proof that the reproduction of the growth was due to a parasite and can well be explained by the regeneration of cells and tissues as occurs in grafting. Another theory is that of the parasitism of cells, which assume that certain cells under certain conditions of lowered resistance may assume parasitic properties with proliferation beyond the normal limit. Adami believes that whatever may be the origin of tumors, the cells forming the neoplasms give up the habit of function to acquire that of growth. In support of this view he brings forth a number of examples, the most prominent of which being that neoplastic growths are more likely to occur in organs or tissues when function is at its decline.

Whatever may be the actual cause of tumors, there are certain conditions which must be considered as predisposing causes. Trauma and inflammation may predispose to tumor formation. Age is also a predisposing cause in this much that physiologic activity favors the development of sarcoma, while physiologic decline favors carcinoma (Da Costa). Inheritance is also considered as a predisposing cause. We may also recall here a geographical survey of the city of London to ascertain the locality of cases of malignant tumors, and it was found that certain houses seem to be endemic sites where cases of malignant tumors would always be found. It also developed that in these same houses there always had been for a period of years inmates, not of the same family, with malignant tumors. It may be considered coincidence, but the fact nevertheless remains and cannot be explained. Whatever the causes, tumors are subject to two general laws: One enunciated by Muller, that "The tissue that forms the tumor has its type in a tissue of the organism, either adult or embryonic"; the other by Virchow, "That cellular elements of a tumor are derived from the pre-existing cells of the organism."

In their development tumors follow very much the laws which govern the growth of normal structures. And while they grow they do not seem to be affected by the progressive wasting of the other tissues. They are said to grow by interstitial growth or by dissemination. The former represents especially the mode of growth of benign tumors, the latter that of malignant. These two

different modes explain why in benign tumors the growth is generally well circumscribed and at times isolated from the adjoining tissues, for the tumor becomes a body totally independent and free from the tissues in which it is developing, frequently being encapsulated. While by dissemination the malignant tumor is ill-defined, cannot be separated from the healthy tissues, for the cells have invaded the lymph spaces adjoining the mass, and are gradually converting this into new foci of development. This mode of development also explains the tendency to metastasis, which, after all, is only the sequela of the invasion of the lymph and blood spaces by the tumor cells, for it becomes then an easy matter for these cells to be swept by the blood and lymph streams to different parts, where they become fixed and form again new foci of development. The same may be said of metastasis by the blood vessels which permeate certain growths. Metastasis is one of the characteristics of malignant tumors.

Clinically the classification of tumors is simply into benign and malignant. For the convenience of study, however, such classification is not satisfactory, and a classification based upon the histology of tumors has been adopted. Following the law of Muller, that all tumors have a prototype in a tissue of the organism it therefore follows that all tumors are developed as all tissues of the body, from epithelium or connective tissue. As each of these have two types, adult and embryonic, we therefore have tumors epithelial in character, which are adult and embryonic in type, and adult and embryonic connective tissue tumors. The adult tissue tumors constitute for the most part the benign tumors, and the embryonic tissue tumors form the malignant group of tumors.

It will be useless here to consider individually the benign tumors, as it would entail an endless consideration of many tumors which are of no special interest; but I will call your attention to certain varieties of tumors which at first benign may assume malignant forms. Such are, for instance leiomyomata of the uterus, which, of slow growth at first, become transformed into rapid growing sarcomata. Among the epithelial tumors we have varieties of papillomata, which, at first developing as innocent growths, under certain conditions, may become epithelial cancers. Krumpecker, Borst and Bloodgood have called attention to this class of tumors. They consider two forms of these growths, one that they consider

always benign, and the other, although quiescent, as malignant. The former is always pedunculated, noninfiltrating and preserves its initial papillomatous appearance; in other words, the adult form of tissue. While the latter preserves its embryonic type and loses the characteristic papillomatous appearance, shows a tendency to infiltration and metastasis. They apply the term benign epithelioma to the former and malignant epithelioma to the latter. Krumpecker further states that the degree of malignancy of epithelial tumors may be modified by the nature of the cells composing the growth. In his description he ascribes the greatest form of malignancy to epitheliomata formed of cells from the superficial layers, while the less malignant cells occurring in the deeper layers, as for instance in the skin or mucous membrane growths developing from basal cells. He consequently divides the epitheliomata into spinocellular, corresponding to the prickle layer cells and baso-cellular, which correspond to the basal cells. He further applies this classification to glandular tumors, describing a form of glandular carcinoma, also observed by Bloodgood, developing from the basal cells of the acini and ducts of the gland, to which Bloodgood has applied the name of "Comedo-Adeno-Carcinoma." Both these authors consider this last variety of tumors as less malignant than the ordinary form of adeno carcinoma.

As we have the malignant papilloma for epithelial tumors, similarly the sarcomata present very frequently have their origin in moles appearing in different parts of the body. These moles are considered as malignant moles, and the most malignant are the pigmented moles. These moles present a quiescent stage and appear benign until certain conditions, not well understood, produce proliferation of cells and development of malignant tumors, sarcomatous in character. The examination of these malignant moles develops the fact that they contain embryonic masses which are probably the starting point of the tumors. The degree of malignancy is also modified by the character and quantity of cells which they contain, a very cellular growth being more malignant than one in which the cellular elements are less abundant. The shape of the cells also influences the malignancy, spindle cell tumors being less malignant than the round cell sarcomata. The presence of giant cells also greatly modifies the malignancy of sarcomata, to such an extent that certain authors claim that enucleation of these last

mentioned tumors is sufficient and that recurrence and metastasis are rare. The systematic study of tumors as proposed by Bloodgood will eventually clear this part of pathology and the association of pathologists and surgeons in this matter will elucidate many points which are now obscure both to the clinician and to the pathologist.

Benign tumors as a rule do not cause much if any change in the general condition of the patient, but malignant tumors do. This condition is generally spoken of as cachexia. This condition of the patient resembles very much that following certain toxic diseases, such for instance diphtheria, producing a condition resembling a form of anemia. The exact cause is not known. It may be dependent upon retrogressive changes taking place in the tumor itself, with subsequent absorption of the product of these retrogressive changes or toxic substances, existing in these, or it may be possible that the tumor itself elaborates a substance similar to a toxin, which is reabsorbed. To whatever cachexia is due, it is a fact that a lysin is found in the blood of certain cases, as has been brought out by Crile. This lysin is cytolytic for blood corpuscles of healthy individuals. It must be late in developing, for it is considered a sign of inoperable tumors. Must we ascribe the anemia of these cases to the formation of this lysin is again a question which cannot be answered. It is possible also that the cachexia is dependent upon the presence of the lysin in the blood of the individual. Yet in many cases of malignant growth of certain regions the cachexia appears late in the disease. This is especially true of malignant tumors of the lower intestines, in which cachexia is very late in making its appearance.

In conclusion we must confess our ignorance of the causes of tumors, and admit that the study of certain growths proves the inclusion theory of Cohnheim: That the malignant tumors especially produce certain reaction in the tissues which are conducive to what is known as cachexia, and that they also develop in the blood, cytolytic properties which do not exist in the normal. All of these are facts deduced from the study of tumors for which we cannot offer any tangible explanation.

Louisiana State Medical Society Proceedings.

EDITED BY PUBLICATION COMMITTEE.

DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DR. HOMER DUPUY, of New Orleans, read a paper entitled **Antidiphtheritic Serum Medication in Post-Diphtheritic Paralyses.**

Absorption of the toxins generated by the Klebs-Löffler bacilli will produce a toxemia which frequently causes paralysis. This complication sometimes becomes one of the serious pathologic events of diphtheria, even leading to a fatal issue. In most instances, however, the paralytic phenomena are of milder grade and may run the gamut from voice deterioration to marked disturbances in the power of locomotion.

It generally appears during convalescence in the second or third week from the onset of the disease or from six to eight weeks after the active process has subsided; hence the appropriate term post-diphtheritic paralysis. It may be the first phenomenon to attract our attention some weeks after the subsidence of what was considered a mild and innocent case of tonsilitis. In two instances at least children have been referred to me for a nasal twang due presumably to adenoids, when the history of the cases pointed unmistakably to a prior yet mild variety of acute sore throat, not recognized at the time to have been diphtheritic. But the presence of soft palate paralysis causing the peculiar character of voice in itself clinches the diagnosis of diphtheria.

While there seems to be no constant relation between the severity of the primary infection and the occurrence of paralysis, in general the paralysis is directly proportioned to the severity of the toxemia.

Severe and even fatal paralysis may follow a mild form of infection. This may be explained by the greater susceptibility of the tissue to the action of diphtheritic toxins, even small amounts in the circulation being followed by varying effects.

Much of the protracted weakness ascribed to asthenia if analyzed more closely will be found as the result of paralysis or paresis of the lower limbs. It is this very difference in our powers of observation which accounts for the various estimates as to the percentage of cases affected by paralysis, some observers giving it as no higher than ten per cent. while others present the figures of 10 to 30 per cent. It is quite logical to believe that the early administration of sufficiently large doses of antitoxin must greatly reduce the possibility of subsequent paralysis, with a complete alteration of these figures.

The difficulty, without a bacteriologic test, of arriving at a correct diagnosis of a mild form of tonsillar diphtheria, especially in the follicular type, will always furnish a loophole through which apparently innocent cases will slip to present during convalescence varying degrees and types of paralyses.

The paralysis is certainly more common and more severe in children and has been observed to occur oftener between the second and sixth years of life. It may include individual muscles or group of muscles. Many groups of muscles may be involved as in paraplegia, which may be so slight at first as to escape notice or it may be referred to weakness. This variety may simulate anterior poliomyelitis. In order of frequency of involvement, we have the palatal, ocular, cardiac and diaphragmatic paralyses. The cardiac occurs early; the ocular and pharyngeal late.

A striking feature of these paralyses is their fluctuating character, the functional impairment disappearing today to suddenly reappear tomorrow, or even in a few days. This would suggest the paretic nature of the condition during the earlier periods of the diphtheritic infection. These symptoms vary with the amount and rapidity of toxin absorption and would also be materially affected by the individual nerve-cell resistance.

The apparent increase of paralysis since the introduction of antitoxin can easily be explained. The paralyses appear late and in pre-antitoxin days the patient died of general toxemia or other accidents before the paralysis had time to develop. Again, before the discovery of Klebs-Löffler bacillus many mild cases of diphtheria were overlooked; lastly, many forms of paralyses were regarded as asthenia or general weakness; its occurrence in spite of the administration of antitoxin must be due either to a late injec-

tion or to an insufficient amount of the serum being given, or to both.

The logic of serum therapy and increased experience in its use are now justifying larger doses of antitoxin even in cases of average severity. We are no longer satisfied to have the membranous deposits disappear, for we are watching the toxemia, which continues long after the membrane has undergone resolution. The least danger signal is heeded and followed by the proper readministration of the serum. This repeated use of the antitoxin to meet the indications of toxicity as they appear will greatly reduce the occurrence of subsequent paralysis.

Recovery from post-diphtheritic paralysis is usually very slow. This is particularly shown in the soft palate involvement. While the regurgitation of fluids through the nose does not generally persist, the voice changes and the disturbances may remain for an indefinite period or continue through the whole of life.

It is conceded that the paralyses are due to a direct action of the toxins on the nerve elements themselves. At first there is irritation, then a true peripheral neuritis. It is my belief that this toxemia persists long after the original disease has disappeared and that actual degeneration in the nerve tissue does not always occur, and when it does it is a late event.

Acting on this belief, I have given antitoxin several months after a primary attack of diphtheria for the relief of paralysis with gratifying results. There is nothing new under the sun, however, and a search in the literature soon revealed that several French observers particularly were experimenting along the same lines. Comby (*Revue Mensuelle des Maladies de l'Enfance*, 1906) reports his experiences in post-diphtheritic paralysis in the use of antitoxin several months after the primary attack, with rapid and brilliant results.

Mourguiniac has collected 18 cases thus favorably influenced. A recovery from the paralysis in three to eight days is a striking event and is not in accord with the average experience. The results seem almost too good to be true and moreover they apparently contradict our accepted ideas as to manner of recovery in such cases. Nevertheless the clinical evidence remains. Our experience requires further corroboration ere we can reach a final conclusion. I report this case in the hope that it will encourage others to give

antitoxin a trial in this affection. It matters not how late the case is seen after the primary infection, the logic of serum therapy calls for antitoxin.

French observers report favorable results even eight months after the original infection. The subject is certainly worthy of our attention. The following recorded experience speaks for itself:

(Lizzie S. W. F., aged 12, in the early part of December, 1907, had what appeared to be an ordinary case of tonsilitis. About twelve days after the attack the patient developed a decided nasal twang. She was then referred to me at the end of February, 1908, by her family physician who suspected adenoids. This was three months after the "sore throat." Examination revealed complete paralysis of the soft palate. She also presented a shuffling gait and showed inability to raise the lower limbs. Patellar reflex absent. These symptoms clinched the diagnosis. On this evidence the apparently innocuous tonsilitis was considered to have been diphtheritic and these nervous phenomena were regarded as sequelae of the prior infection. Doctor P. E. Archinard saw the patient and concurred in the diagnosis. On Saturday, March 4, 1908, 5,000 units of antitoxin were given; this was repeated on the third day and again on the fourth. On the fifth day marked improvement in the voice and some improvement in locomotion. On the seventh day another 5,000 units. On the eighth day there was complete vocal restoration and locomotion was almost normal. The patient received no other treatment but serum therapy.

DISCUSSION.

DR. VAN WART: I wish to say something concerning this subject from a neurological standpoint. The paralysis resulting from diphtheria is due to a parenchymatous neuritis, the result of the action of the toxin on the nerve cell and processes; actual degeneration occurs. It is consequently difficult to understand how antitoxin could effect an organic lesion. It is easy to understand how antitoxin can prevent the development of the paralysis and it has been shown by experiments in the London hospitals in many cases that the antitoxin does not seem to have any effect on the paralysis after it has occurred. Many cases recover without treatment and the length of time required for recovery depends on the damage done. It is very easy to understand how an apparent

improvement might occur from the use of the antitoxin in mild cases. It would be interesting in this connection to determine its use in cases where electrical reactions showed an actual nerve destruction. In cases with slight electrical changes, recovery is usually prompt; while those with the action of degeneration require a much longer time.

While these remarks are not desired to discourage the use of this method of treatment, its usefulness can only be demonstrated by carefully determining the character and severity of the paralysis. The prognosis can always be made by means of the electrical reactions..

[DR. THORNHILL: I would like to ask Dr. Dupuy if, in his experience he has found abolition of the knee jerk to precede the symptoms of post-diphtheritic paralysis. By some eminent neurologists this is considered a valuable sign of the approaching paralysis which often follows diphtheria, Gowen among them.

DR. DUPUY (in closing): Clinical experience shows that while the great majority of post-diphtheritic paralysis in time, that may mean many months, disappear, in some cases the condition persists. If the administration of the antidiphtheritic serum will hasten or actually effect a cure, even many, many months after the infection, its use is logical and justifiable. This is my answer to Dr. Van Wart's remarks.

DR. J. A. STORCK read a paper entitled, "*Chronic Sigmoiditis; Report of Two Cases.*" (Ms. not furnished Publication Committee.)

DR. SIDNEY K. SIMON read a paper entitled "*The Amebic Dysentery and Its Prevalence in Louisiana.*" (Ms. not furnished Publication Committee.)

DISCUSSION.

[DR. BASS: The doctor has called attention to a disease which is no doubt more prevalent than we recognize. I have had occasion to see some five or six cases in the last few years. Some of them had the possibility of infection outside of Louisiana. In one particular case a negro who had never been outside his parish had the disease. Dr. Simon says we should examine specimens of the feces under the microscope. The impression should not be gained that the organism is found in the feces proper. It is in the mucus or the mucous membrane and gets mixed with the feces. The feces

itself does not contain amebi except very rarely. It is frequently necessary and advantageous to pass a rectal bulb and withdraw it, when you will find in the eye of the tube a small amount of mucus in which the amebi may be demonstrated if present.

DR. CHASSAIGNAC: I will limit my remarks to one point, which refers to the treatment and is probably in line with what has been suggested by Dr. Simon, but applying the treatment in a different manner. I had occasion to see some cases while still in general practice and I still see some cases by reason of their being referred to me for rectal treatment, when the examination shows that the irritation or ulcer is due to the amebi. In order to be able to dispense with the rather trying and fatiguing treatment by irrigation with quinin solution, I would mention the fact that a very effective treatment is that which included the use internally of powdered cinchona, not merely a quinin solution, but also the powdered cinchona. If given in large doses, perhaps thirty grains in wafer the results will frequently be found most happy; by giving it largely, a good deal of it is carried down to the seat of trouble; it has a more pronounced effect. I would certainly suggest a trial of this simple method before more troublesome means are attempted.

DR. GUTHRIE: I think Dr. Simon has made an error in stating that 25% of these cases show an amebic basis. This may be true in the tropics, where the most careful compilation of statistics has been made. In the tropics the mortality is put down at 67%. I am satisfied that the 25% and the fatality does not apply in the State of Louisiana. I am also satisfied that it is impossible to get the average of these cases absolutely well from amebic infection in six weeks. His two statements do not tally. It is a very stubborn infection and such procedures as doing a colostomy have been done. On the other hand I think it is considering a disease too lightly to place six weeks as the time we could expect the average to be free from amebi.

DR. STORCK: The disease is a very stubborn one and the treatment is difficult, requiring a great deal of patience. If the mucus is examined in the fresh state, it will show the amebi present if they are there.

DR. EUSTIS: I wish to lay stress upon the disagreeableness of prolonged irrigations. My attention is called by Dr. Bass to the fact that even prolonged irrigation does not reach all of the

amebi. They are buried deeply in the ulcer. Along the line of internal medication, Dr. Strong, just back from the Philippines, states that it is almost impossible to teach the natives how to irrigate the rectum properly. For this reason he has been administering thirty grains of ipecac, after giving thirty minims of laudanum and then puts the patient to bed. The infection is a difficult one to deal with, but Dr. Strong claims to have had wonderful results with this internal medication. Personally, I prefer rectal irrigation, but at times this is impracticable and in these cases I would suggest ipecac.

DR. A. L. WILSON, of Alexandria, La., read a paper entitled,

The Surgical Importance of the Intestinal Lesions of Typhoid Fever.

I feel that no apology will be necessary on my part for submitting for consideration and discussion to the members of this section and of this society the subject of the "Surgical Importance of the Intestinal Lesions of Typhoid Fever." It will be my purpose to consider in this paper only perforation of the intestine and volvulus, with report of a case of volvulus. This subject should be of especial interest to the members of this society, for the reason that we all, with few exceptions, are general practitioners of medicine. It is while under the care of the general practitioner that such complications usually arise.

Thus it becomes our duty to recognize these complications and act in accordance with the teachings of modern authorities.

I am of the opinion that our profession has not in the past, nor is it at present, giving to these patients who suffer with such complications the proper recognition and attention which they deserve.

Vaughn makes the statement that 15,000 patients die annually in the United States from perforation of the intestine complicating typhoid fever. In reviewing the records of cases operated on for perforation in 1903, Franke was able to find only 352 operated on in the whole world. In a condition which shows such great mortality (95%) without operation, as compared with the

hope offered by surgical intervention (with a recovery of at least 25%), we must admit, it seems to me, that we are derelict in our duty as physicians, if we do not recognize such complications early and act promptly.

Leyden of Germany and Dr. J. C. Wilson of this country were first of the noted authorities among the internists to call attention to these complications of typhoid fever as surgical conditions. At the present time most, if not all, our eminent medical men are of the opinion that these complications demand surgical treatment.

In a disease in which about 3% of all deaths occur from perforation of the intestine, and in which 95% of those so affected die, I think our profession should always be on the alert, recognizing such complications early, so as to give our patients the benefit of surgical treatment. In 63 fatal cases reported at Johns Hopkins Hospital, 20 cases, or 32%, were associated with perforation and consequent peritonitis. In the report from Leipsig it is shown that 16% of the fatal cases were due to peritonitis, as a result, no doubt, to perforation of the intestine. I think from statistics that it is safe and conservative to conclude that from 3% to 10% of the fatal cases of typhoid fever are due to peritonitis, resulting from perforation of the intestine.

Peritonitis is very rarely met with independent of the lesions of Peyer's patches and the solitary follicles. A few cases occur from rupture of the gall bladder, abscess of the mesenteric glands, perforative appendicitis and in some instance perforative ulcer of the stomach.

The pathological findings show that during the stage when exfoliation from the ulcers occur, when the ulceration has extended through the mucous and muscular coat down to the serous coat of the intestine, and perhaps through the serous coat that we most frequently have the perforation occur and peritonitis resulting.

The ulcers are usually or generally located on the opposite side of the intestine from its mesenteric attachment and are usually longitudinal with the intestine.

If the perforation has occurred in a follicle we find it small and round; if it has occurred in a Peyer's patch we find it larger and usually round. The time at which exfoliation occurs is usually

during the third week of the disease; we must not lose sight of the fact, however, that it may occur earlier or later in the course of the disease.

Peritonitis may be either circumscribed or general, unfortunately for the patient, the latter condition exists in a majority of cases. There are some cases in which the perforation takes place in the cecum or appendix vermiformis, in which the peritonitis is circumscribed or localized, and it is in these cases that recovery some times takes place spontaneously without operation. Cushing is of the opinion that a localized peritonitis is in some cases a *symptom* of perforation, which he terms the pre-perforative stage. This symptom of the pre-perforative stage is of great importance to us and to the patient, for the reason if early recognized and the proper steps taken, we may save the patient the consequent peritonitis and perhaps his or her life. We most frequently find the perforation within the lower three feet of the ileum (in 80% of the cases).

The next most frequent seat of perforation is in cecum and appendix, then in the colon, and sometimes they are found in the sigmoid flexure and Meckel's diverticulum. The perforation is found usually to be very small, but may be large, depending upon the direct loss of tissue. They are usually single, but are sometimes multiple, and may be adjacent to each other.

SYMPTOMS: Besides the preperforative symptoms already alluded to, viz: localized peritonitis, diarrhea, meteorism and other serious intestinal symptoms which I think have been satisfactorily established as symptoms which usually precede perforation.

Any severe pain in the abdomen which cannot be accounted for otherwise should arouse our suspicions of perforation, or at least direct our attention to a more careful examination of our patient.

Perforation most frequently occurs suddenly and unexpectedly. It may, however, be preceded by ill defined disturbances, such as increased abdominal tension, colicky pains, borborygmus, diarrhea, etc.

Hemorrhage of the bowel may be an indication of an expected perforation. This complication occurs, however, frequently without perforation. The patient may be able to tell when such lesions occur, being attacked suddenly with a stabbing pain, sometimes

an actual sense of tearing or laceration. In most cases the perforation is soon followed by abdominal pain of rapid progressive tendency, being increased on respiration, particularly inspiration, or active motion, or on pressure and palpation of the abdomen; all of which are strongly indicative of perforation. Some patients refer to the point of origin as being in the right hypochondrium or in the right iliac region; others, however, are unable to locate the seat of trouble. With the onset of pain almost simultaneously, sometimes even preceding the pain, the patient is seized with violent paroxysms of retching and vomiting, in which the contents of the stomach are expelled. The abdomen becomes progressively distended to an extreme degree in some cases. The general condition of the patient changes, the features become drawn, the nose pinched and the extremities cold and livid, the face and body covered with a cold sweat, pulse becomes frequent, irregular and small and thready, when it can be with difficulty counted, and is almost imperceptible at the wrist.

Temperature may fall or rise; in some cases it will fall below normal several degrees; there may or may not be a chill at the time of perforation. If the perforation should be large and the whole peritoneal cavity is deluged with intestinal contents, all of the above symptoms become intensified and collapse may supervene. In some cases the abdomen does not become distended, the pain usually following perforation and peritonitis is absent, which circumstance increases the difficulty of diagnosis, even for an expert clinician. Many patients retain consciousness until death, which may occur within 24 hours. In cases where peritonitis is not so rapid the patient may recover from the primary shock, the pulse improves, becomes fuller, temperature rises, though rarely to a great height. The hope thus aroused from an improvement in the patient's condition is always deceptive. The symptoms are usually progressive until death, which usually occurs on the third and not later than the fourth day, the cases of severe onset rarely live longer.

The early symptoms are of greatest importance when we consider the promising results obtained by operative treatment, therefore good results are dependent on early recognition of the perforation. The physician should then be able to recognize the symptoms of the condition by being thoroughly familiar with such

symptoms as precede and accompany perforation. McCraw particularly directs attention to abdominal pain in typhoid at any and all times during the disease, with especial reference to its character in perforation. Thus the sudden onset of severe pain demands our careful consideration and a careful examination of the patient with careful notation of the symptoms. The pain after onset becomes paroxysmal and in some cases is present hours before actual perforation takes place and the onset of tenderness and rigidity of the abdominal muscles.

Muscular rigidity and abdominal tenderness are usually most marked in the right hypochondrium; respiratory movement being restricted on this account.

SUMMARY: Sudden fall of body temperature when present is very characteristic, but is sometimes absent and may occur in other conditions, thus it is to some extent unreliable. Vomiting when present is an important symptom, but it may be absent. Increasing abdominal distension with obliterating hepatic dullness which should be observed at frequent intervals in all cases is a valuable diagnostic symptom. Pinched, drawn and anxious face is usually an early symptom and one of the first suggestive symptoms. An early increase of leucocytes is of great value in the diagnosis of the condition and should be frequently made when we suspect perforation; in fact, the leucocytic count should be made frequently throughout the disease. Upon abdominal section we find the bowel wall deeply congested, soft and friable and covered with patches of lymph. The perforation is recognized by the deep blue discoloration around it and the escape of gas and feces.

I wish here to call attention to the fact that many of these symptoms may also be present in that rare condition, volvulus.

My appeal to the general practitioner is to make early diagnosis in these cases and if he feels that he is not equal to the emergency, call for the assistance of another physician or surgeon.

Always give a high enema before we make a positive diagnosis of perforation as sometimes scybala in the colon have produced the gravest symptoms very much resembling perforation.

TREATMENT: I wish to say under this head that I have nothing new to offer in the way of treatment, nor has my experience as a practitioner offered me any special opportunity of observing

a great number of such complications of typhoid fever. I remember to have seen a few cases during the years that I have practiced medicine, which if the true conditions had been observed, a diagnosis made and the proper surgical treatment carried out the patients, in my judgment, would have had a chance for recovery. My object, therefore, in choosing this subject for this occasion, was to bring the matter more forcibly to the attention of the general practitioner, hoping by doing so, that it might be the means in future of saving the lives of at least 25% of those unfortunate who may be so afflicted.

I am aware that the general practitioner cannot become a specialist in surgery, but inasmuch as the operation for perforation of the intestines in typhoid fever is an emergency operation and that the peritoneum is already infected in most cases with pathogenic organisms, it would seem that any well-informed physician with favorable operative technique, would be warranted in opening the abdomen when such complications exist. Dr. A. Caille, of New York, in the introductory chapter of his most excellent book on "Differential Diagnosis and Treatment of Disease," has made use of some timely suggestions, which I wish here to produce verbatim: "The general practitioner must be: Master of physical diagnosis. He must have some laboratory training, particularly if he practices away from laboratory facilities. He must be able to make a local or regional examination, employing such of the methods of specialists as have become general property. He must have a good knowledge of hygiene and dietetics. He must be able to practice minor surgery and be able to perform *emergency operations*." He also advises that the physicians of communities combine together for the purpose of aiding each other in the performance of emergency operations, and advises that a trained nurse be encouraged to locate in the smaller towns and communities, for the purpose of aiding the physician in the preparation and performance of surgical operations. In view of the fact that so many of these cases are met with in the smaller towns and in some instances in the interior, where it would be impossible to remove them to a suitable hospital, it remains for the general practitioner to equip himself for these emergency operations. In many instances, however, those cases are not so far removed from some neighboring town, in which there may be a physician who

has had sufficient experience in surgical work, who might be called in time, and, in connection with the attending physician, be able to save the patient's life. When a culture shows the presence of the streptococcus pyogenes the prognosis is extremely grave, as such cases are generally fatal.

Operative Treatment.—The object of surgical treatment in perforation is to open the abdomen, repair the perforation and cleanse the peritoneal cavity. If general peritonitis exists, the incision had better be made in the linea alba, and, I might here say, that general peritonitis exists in most instances. If local peritonitis exists, the incision should best be made over the site of circumscribed peritonitis; perhaps the best place to make the incision in these cases would be through the outer border of the right rectus muscle. The incision at this point would lessen the integrity of the abdominal wall least. We should keep in mind the most frequent site at which such perforations occur in searching for them, thus we should first carefully examine the lower portion of the ileum (the last two or three feet). This search should be made with a good light and a careful search made for perforations, as well as for those ulcers likely to perforate. We should not forget to always examine the vermiform appendix, as in some instances we may find the cause of the peritonitis there, when a perforation of the ileum may be absent. When a perforation is found the edges should be turned in and the mattress culture of Halsted used to close the opening in the intestines. If very much of the bowel structure has been destroyed an enterostomy or perhaps enterectomy will have to be done, owing to the condition of the patient, enterostomy is preferable. After having found and repaired all perforations, the peritoneal cavity should be carefully wiped out with sponges and hot normal saline solution, using great care not to handle the intestines too much. The time of operation should be carefully determined by the physician. I think, however the prevailing opinion among operators is to wait until the patient has recovered from shock. Operations during the first eight hours show the highest mortality, those during eight to twelve hours after perforation show recovery of 26%, those from 12 to 18 hours show a recovery of 29%, and those of the period of from 18 to 24 hours, show the greatest number of recoveries, 31%. After 24 hours nearly all cases die. From such statistics we must

conclude that the best time to operate is after the patient has recovered from shock, and perhaps during the hours from 18 to 24 after the perforation has occurred. In determining the time to operate we must not lose sight of the fact that in some cases the patient is not profoundly shocked, and in such cases, where a diagnosis has been made the operation may be done sooner, without increasing the mortality. The operation should if possible be done under local anesthesia. This will to some extent, however, depend upon the patient's condition. Although I have not had much experience with the compound, I think in some cases the use of the scopolamin morphin comp. or hypo of morphia preceding general anesthesia would be of value, as by doing this we would lessen the amount of the general anesthetic, therefore lessen the danger to the patient. The operation should always be done with as great facility as possible, consistent with efficient work and should not consume more time than one hour, as after this length of time the patient's chances of recovery are very much diminished.

Operation should not be made during profound shock, but with the use of local anesthesia we would be justified in operating with a greater degree of shock than when a general anesthetic is employed only. I wish here to call attention to a recent article in the *Journal of the A. M. A.* by Dr. Stuart McGuire, in which he calls attention to the Fowler-Murphy method of treatment in general septic peritonitis, together with his devices by elevation of the bed and patient. This method could be used especially in cases with general septic or purulent peritonitis volvulus.

In conclusion, I wish to report the following case of volvulus, involving the lower twelve or fifteen inches of the ileum, complicating a case of typhoid fever under my care. I have dealt principally in this paper with perforation of the intestine, the most frequent intestinal complication of typhoid fever, and, in conclusion, I give this report of the rarest intestinal complication of typhoid fever. The latter is indeed so rare that Curschmann, in his most excellent chapter on typhoid fever in Nothnagle's *Encyclopedia of Practical Medicine*, has failed to even mention volvulus as a complication. Thacker, in the chapter on typhoid fever in the *Twentieth Century Practice of Medicine*, also fails to mention it as a complication. Dr. Keen in his little volume

devoted entirely to the surgical complications of typhoid fever, has failed to mention this as a complication. We, therefore, conclude that when such authorities as these fail to mention volvulus as a complication it is indeed rare.

CASE HISTORY VOLVUS COMPLICATING TYPHOID FEVER—B. M. T. Age 30 years; nationality white; single; residence Alexandria, La; occupation, railroad brakeman on Southern Pacific railway, running between Alexandria and Lafayette, La.

At the time Mr. M. was taken ill, in July, 1907, there were, I am told, a good many cases of typhoid fever in the town of Lafayette, La., where he was running in and out daily. In some unknown way he was infected with typhoid fever, and on July 22, 1907, he was taken ill with fever, but continued to work for one week, his temperature, so his mother informs me, running to 103 F. or 104 F. degrees in the evenings so that he would come to his home in Alexandria. On or about August 1, 1907, he went to bed, when I was called to see him, and found him with a continued type of fever, the temperature, however, running low, but did not yield to the therapeutic test with quinin. I then had a bacteriologic examination made of his blood, which gave a positive reaction with the Widal test. With the clinical symptoms and the positive report, I was enabled to make a positive diagnosis of typhoid fever. The fever ran a mild course from the time I first saw him on until August 15, 1907. He, however, had some diarrhea during the illness. Even at this time he seemed to be nearing convalescence, the temperature touching normal every morning and only running up one or two degrees in the afternoon. On the above date he was seized with severe and continued pain in the right flank, which did not yield entirely for some hours to large doses of morphia hypodermically. Accompanying the above symptoms were abdominal rigidity, extreme tenderness on palpation, subnormal temperature, rapid pulse, pinched, anxious expression, vomiting and cold perspiring surface. In fact, all the symptoms of perforation were present, and I at once suspected that condition. I then told the family what I suspected and that I considered the condition grave and asked for consultation. Another physician was called to see the patient with me and concurred in my opinion. We then suggested operation which was submitted to, and the patient was carried to the sanitarium, where

as soon as preparation could be made, the abdomen was opened at the outer border of the right rectus muscle, on the right side, as nearly over the site of trouble as possible. Upon opening the abdomen we found a volvulus of the lower twelve or fifteen inches of the ileum. The condition was relieved, and the color of the intestine rapidly changed from the dark color to the normal. We then searched for a perforation and upon close examination were unable to find any. The abdomen was then closed without drainage and the patient returned to his room.

Post O.—The patient suffered from stercoraceous vomiting for about two days after the operation, which was relieved only after the bowels had moved freely. Seventeen days after the operation, after having eaten some indigestible food, he was seized with severe pain again in the right side. The symptoms were very much as before, but not so severe, and were relieved after free movement of the bowels and confining the patient to liquid diet for two or three days. About six weeks later the patient had another attack, of the bowels and confining the patient to liquid diet for two or three days. With the above exception the patient made a good recovery and is able to again assume his duties as brakeman.

DR. J. B. HARGROVE read a paper entitled

Carcinoma of Liver; Operation; No Return.

It is not my intention in reporting this case to delve into the etiology, pathology nor symptomology of cancer. I have no desire to rehash the theories of a special virus, of local inflammation, of diet, of heredity, or the embryonical theory of Cohnheim and Durrante; the theory of traumatism, the intrinsic theory as to cells themselves, nor the extrinsic theory of a cause from without. The extrinsic theory leads to parasitic origin, thence to contagion and infection, but I wish to confine myself to this case of carcinoma of the liver and make the point that it was a primary cancer. The history of carcinoma hepatitis is of comparatively recent years; at first it was thought that carcinoma of the liver was as often primary as secondary and Bamberger in 1864 was the first to state that the primary form was a very rare occurrence, while the liver,

as demonstrated by Virchow, is a very fertile soil for the deposition of cancerous germs from other parts of the body; all or most authorities agree with Bamberger that primary carcinoma is a rare disease.

Caille says: "Cancer of the liver is usually secondary." Da-costa says: "The liver may be the seat of primary cancer, but secondary malignant growths are far more common; nineteen-twentieths of cases of cancer of the liver are secondary."

Ashurst says, and I make the quotation in full, to show how unusual this case is: "Scirrhus, which is at first usually solitary, not only grows in the locality in which it first appears, but becomes diffused by multiplication in other parts of the body. The most frequent seat of secondary deposits is unquestionably the lymphatic vessels and glands in the neighborhood of the original tumor, next in the tissue around, but not immediately connected with the point of original disease, and lastly in the distant organs, especially the liver, lungs and bones."

Holmes claims, while he does not say it is a very primary location that the liver is a very frequent secondary location of scirrhus cancer. Holmes says: "The serous membranes are much more frequently affected with secondary cancer than the lungs, the spleen and the kidneys; far less commonly than the bones, but above all the organs rises the liver in its liability to secondary cancer."

I was glad to read these words by one of our best authorities, viz., the diagnosis was made in only a few cases; the tumors were mistaken for tumor of pancreas, mesentery, omentum, etc., and this quotation from Parrilhe of Toulouse in 1774, which literally translated is: "To cure cancer or to describe it is very difficult." And from Park: "Cancer with all its local characteristics and its fatal termination is a disease without a symptomology of its own."

On June 27, 1903, the patient called at my office; a negro about 50 years old; she complained of slight pains at intervals and a feeling of weight in region of umbilicus at all times. Patient was of small frame, fairly well nourished, very active. There was no fever or constitutional disturbance. On examination I found a tumor to right of and about on the level of umbilicus. The tumor appeared to be about the size of a fist and freely movable. I

called my confrere, Dr. Williams, and we made the diagnosis of omental tumor, hence my thanks for the words quoted as to diagnosis.

We informed the patient that an operation was the only remedy, but left it to her discretion. She desired the operation, so on July 2, 1903, assisted by Dr. Williams and then students, now doctors, Bath, Stephens and Crain, I removed the tumor. The room was prepared as well as possible and all aseptic precautions taken. Incision was made over the site of tumor, and when the cavity was opened and the tumor exposed I found it a hard tumor of the right lobe of the liver. The tumor was tied off of liver substance and excised pedicle and cavity were washed with saline and there being no hemorrhage the wound was closed as in ordinary laparotomy. The patient had borne the chloroform well and soon rallied. She had a temperature of 100 on July 3, but none after that date. The abdominal wound healed by first intention and she returned home on July 25, and since that time has enjoyed good health, with no return of the disease.

The tumor weighed 394 grains, and feeling confident that it was malignant, I sent a section to Dr. P. E. Archinard, requesting to make report on same at his convenience. Dr. Archinard very kindly wrote me on August 21, 1903, in which, after explaining the delays, said: "A careful examination of specimen showed same to have been carcinomatous of the scirrhus variety."

As to treatment, all agree as to operation being justifiable, but differ as to method to be employed.

Elder in 1886 gave mortality of operations where liver tissue was involved at 62%, but since that time great progress has been made in resecting tumors of the organs, and when we consider the friability of the organ and the gaping vessels rendering the suturing so difficult, the results have been astonishingly good.

Glueck, Ponfick, Mister and others, by experiments with animals, showed that large portions of the liver could be removed without detriment; in fact, the organ seems to have the power of regeneration. There are four methods employed:

1st.—Interperitoneal—This method was followed by Bruns, Wagner, Keene and others, but was not satisfactory.

2nd.—Two operations in two sittings. Tillman's fixed the liver to the abdominal wound and destroyed other growth with the

cautery. Lucke fastened the pedicle in the abdominal wound and surrounded it with an elastic ligature and cut away with the cautery; Terrillon used the same method.

3rd.—Fixing the stump in the abdominal wound. Hochnegg and Rosenthal fastened the stump into the abdominal wound.

4th.—Gauze packing. This was practiced by Eiselberg, Bergman and others, and is recommended by Warren and Gould, they claiming it unsafe to drop the large pedicle into the abdominal cavity and close the wound. Abbe says: "The hemorrhage need not be greatly feared and the liver tissue between the ligature and the cut need give no more anxiety than an ovarian pedicle.

Fixing the pedicle into the abdominal wound is open to the objection that the liver may be pulled out of position and every respiratory movement has a tendency to tear the stitches. This objection does not hold good to gauze packing, but if the hemorrhage has been controlled and we need not fear the pedicle, there is no excuse for the long treatment necessary under this method, especially if the tumor is small, yet, if the tumor was large I am free to confess I would hesitate and in all probability would resort to gauze packing.

Orleans Parish Medical Society Proceedings.

President, DR. AMÉDÉE GRANGER. *Secretary*, DR. C. P. HOLDERITH.
141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.
DR. HOMER DUPUY and DR. S. K. SIMON.

MEETING OF OCTOBER 24, 1908.

DISCUSSION ON DR. COURET'S PAPER.

DR. HARRIS: Regarding the case of fibrous broncho-pneumonia, I had the opportunity of examining the microscopical section of this specimen, in fact, it was demonstrated to the students in the laboratory of pathology. I do not think that anyone looking into the microscope alone could have made a diagnosis other than that of lobular or fibrinous pneumonia. The great amount of

fibrin present, some of the air vesicles being completely filled with it, and the absence of great proliferation and desquamation of the living cells, fetal and respiratory, would negative a diagnosis of lobular or broncho-pneumonia. The only microscopical point which resembled the lobular type was the fact that some air vesicles were in the stage of red hepatization, whilst others adjacent were in the stage of gray hepatization. We know, as a rule, that the changes in a lobar pneumonia are usually synchronous and those of lobular non-synchronous. However, I think this too "hard and fast a line" to draw, and have seen exceptions to the general rule. Above all, the fact that this tracheo-broncho-pneumonia was caused by the pneumonococcus of Fraenkel-Weischelbaum, alone, with no mixed infection, especially the Klebs-Löffler bacillus, is indeed unusual.

MEETING OF NOVEMBER 14, 1908.

SYMPOSIUM ON TUMORS—DISCUSSION.

DR. DELAUF: I am pleased with Dr. Lazard's statistics, for they prove the frequency of malignancy in the negro race—a fact which is disputed by some surgeons in this country. I have one in mind now, Prof. Rodman, formerly of Louisville, Ky., now of the Philadelphia Medico-Chirurgical College, published an elaborate article on malignant growths in the negro, stating that malignant growths of the penis are extremely rare; but my experience at the Hospital has been otherwise, and the statistics brought by Dr. Lazard help to prove the same. The methods of producing anesthesia for the operation of partial amputation of the penis, I noticed especially that the doctor had used exclusively the lumbar puncture. While I am a strong advocate of it, still I prefer the use of cocain infiltration when it can be applied as in cases of partial amputation of the penis. As to the patient exhibited, there is some doubt in my mind as to the cure, as from my seat I can observe some enlargement of the femoral glands, which are quite prominent, showing possibly a recurrence of the disease.

DR. COURET: Dr. Lazard's suggestion of incising the testicle to determine the character of the growth may be permissible from a surgeon's view, but there are points of differential diagnostic

value that might be resorted to in place of this very radical method.

The most common growths of the testicle are gummata, sarcomata and tuberculosis.

In gummata we rarely find thickening of the cord. In sarcomata and tuberculosis the epididymis is usually rapidly or primarily involved, and thickening is common if not constant.

In tuberculosis we rarely find primary infiltration of the tunica, and the testicle rolls rather freely under the examining fingers; but in malignancy, there is rapid and diffuse infiltration and adhesion of these structures.

The usual method of clipping off for examination, small sections of tumors suspected to be malignant, and allowing the patient to remain a few days before operating, is a very bad procedure. The better mode is to examine such sections while the patient is being operated. This can usually be done within 10 minutes. I have seen Dr. Pothier make such examinations in 7 minutes.

Dr. Pothier alluded to cachexia, but did not enlighten us as to its probable cause. I do not wish to bring forth a new theory, but while psychic effects, degeneration changes, and toxins from the excitant of these tumors, undoubtedly play some part in inducing cachexia, is it not more reasonable and possible that malignant tumors, depending upon very active cell division for their rapid growth, require a corresponding amount of nutritious elements, thereby causing a natural drain on other tissues? And for that reason, in benign tumors where the growth is slow, nature has ample time to adapt itself to new conditions and cachexia is consequently rare.

DR. S. M. D. CLARK: I wish to take issue with the inference in Dr. Perrilliat's paper that cancer of uterus is more frequent in the white than colored. I am convinced that the data in his paper shows the greater frequency in the white from the fact that in the colored clinic the vast majority of our cases report for treatment in an advanced and inoperable condition, and are not admitted, therefore, do not appear on the records of the hospital. We can admit only most favorable cases to the colored services, owing to the restricted number of beds and a very large clinic. The old idea that uterine carcinoma is rare in the colored race is a myth. Dr. Lemann, several years ago, read a statistical paper on the negro women from a gynecological point of view and brought out

the frequency of cancer. I am waiting until my cases reach 3000, when I intend showing this as one of the deductions.

Our cases of fibroids in the negro is about four times as frequent as in the white.

DR. KEITZ: I would like to ask Dr. Lazard if the X-ray has been used before operating? I had one case in my practice, with all the clinical features of cancer, who got well with X-ray treatment, as he came very early in the development of the disease.

DR. HACKETT: Although Dr. Perrilliat has included ovarian and other cysts, he has, for some reason, omitted chronic pyosalpinx (pus tubes). While strictly speaking the latter might not come under the head of tumors, they certainly present one of the most formidable "masses" the abdominal surgeon has to deal with. I refer to these old cases, where tubes, ovaries, uterus, intestines, omentum and appendix, are absolutely welded together by dense adhesion into one conglomerate pus-saturated tumor or "mass," if you prefer. During the past five years I have operated on quite a large number of these cases, more or less, as described, I think about 80, and have lost 2. The technic of handling these conditions is worthy of consideration; but, as I expect to write more fully on the subject in the near future, I will only mention that bisecting the uterus and working from this center out, offers by far the most speedy and effectual method of procedure. I have accomplished in 15 or 20 minutes by this method what has required from an hour to an hour and a half by any other. In a large number of cases, one is enabled to avoid rupture of the tubes and spilling of pus, but in many others, it is a physical impossibility. In many instances, the first attempt at breaking adhesions is met by rupture of the disintegrated tube walls and extravasation of purulent contents. While the claim is made and perhaps borne out by facts that pus in such cases, especially where they are of long standing, and no temperature, is sterile; I have never trusted it and have done what I have never seen anybody else do, viz.: After removing the mass, I have walled off the vaginal cavity and intestines with gauze or towels, and then filled the pelvis with a hot $\frac{1}{2}$ or 1% formalin solution. This I allow to remain only a few minutes and then dry out by sponging, following this by washing with hot saline solution, to remove any excess of formalin. I then complete the toilet of the peritoneum and close the abdomen with-

out draining. While some of my confreres differ with me as to this procedure, my results speak for themselves.

DR. MILLER said he would like to ask Dr. Perrilliat if the figures quoted in his paper represented the mortality after operations or, did it include every one dying of cancer in the Charity Hospital during the time mentioned? If it only includes operative mortality, the percentage is 50 per cent higher than he had believed.

DR. LAZARD: I prefer spinal analgesia and do the anterior long flap amputation. Whether the femoral enlargement in case presented is due to malignancy or the infiltration following healing or post-operative inflammation, I don't know. It was not present at the time of operation. This case was exhibited to show the immediate operative results, and this gland will be removed later. The thickening of the cord in syphilis, as also in tuberculosis, does not form a diagnostic point. No good results in the use of X-ray for cancer of the penis, and have discarded it entirely.

Gland removed later and found to be inflammatory enlargement.

DR. PERRILLIAT: In answering Dr. Clark said that Dr. Clark had been in charge of the colored gynecological outdoor service for several years and was in a position to speak with authority upon the prevalence of malignant disease in the colored race and the degree of advancement of the cases that presented; that he (Dr. Perrilliat) had been in charge of the white out-door service for an equal number of years and thought that cases of inoperable carcinoma of the genitals presented themselves in as great, if not greater numbers, in the white clinic and that consequently the relative statistics gathered from the indoor service would not be modified by this only apparent discrepancy.

In answer to Dr. Miller, the doctor said that his percentage was not all surgical, but was taken from the total number of deaths in the service from all causes, surgical or otherwise, relatively to the total number of cases admitted. So that if the surgical mortality were estimated, most or all the deaths being post-operative, the surgical mortality would be even greater.

DR. POTHIER: Have not much to say except in regard to the point brought out by Dr. Couret in the diagnosis of tumors. The ablation or cutting off of a piece of the tumor and not only waiting a few days, but a few hours, will even produce metastasis at times. The opening or cutting through a tumor will produce metastasis,

especially true of spino-cellular tumors and the smallest cut of these tumors will produce metastasis. As to X-ray, I have found the baso-cellular tumors, or least malignant, respond to this treatment. Tumors that do not metastasize, epithelial in character, all of them are for the X-ray treatment. The treatment of tumors other than this type by the X-ray is an error; it is therefore necessary to find to what variety they belong before you can use X-ray treatment. The surgeons say that the knife is the best, excepting certain regions, such as the face. I wish to convey the idea that epitheliomata, which belong to the baso-cellular type, are the only ones amenable to the X-ray and the other types are aggravated.

DR. S. M. D. CLARK: (With permission of the Chair, I would like to ask Dr. Pothier what procedure would he use to avoid metastasis after taking a section of a tumor, and had to wait a few days for the report of the examination? He had seen at one of the large clinics Harrington's solution packed in the incision immediately after the removal of the specimen. Would he advocate carbolic acid and alcohol, or the actual cautery?

DR. POTHIER: In answer, will say that I do not know of any method that will obviate this; yet it is plausible that the cautery or escharotics may be used as soon as cutting is done, the knife, however, carries infection deeper, thereby new channels are opened and cells are at once thrown into the circulation before anything can be done to prevent their being swept into the current. I do not know of anything that I can suggest.

DR. LAZARD: Before closing of the discussion, I would like to hear from Dr. Granger as to penile cancer and his results with the X-ray treatment?

DR. GRANGER stated that, in his hands, the X-ray as a therapeutic agent in malignancy has been very disappointing. In a large hospital clinic, to which all classes of cases were referred, he could recall but a few instances in which a cure had been accomplished. In each of those cases, the growth was of the rodent ulcer type. Often, he has seen a great deal of improvement, amounting in some cases almost to a cure. This, however, did not last for any great length of time and recurrences were the rule. He therefore reserves the ray for use as a palliating agent in the inoperable cases, and in all early cases he uses the method of elec-

trical destruction and sterilization, which has given him excellent results during the past five years.

DR. POTHIER: I would like to say that in listening to Dr. Granger's discussion I noticed that he said that the rodent ulcer was the only one that showed signs of improvement with the X-ray treatment. I would like to state that the rodent ulcer is a type of the baso-cellular tumor, and the only one which improves under this treatment.

NEWS.

The *Journal of the Southern Medical Association* is out, Vol. I No. 1, and it appears in a most attractive form—both as to size and arrangement of matter. Quite dissimilar from other State Association publications related to the A. M. A., this journal has started in octavo and the size is convenient as it is handy. The initial number presents most of the proceedings of the Atlanta meeting of the Association, an initial editorial, news items arranged under State captions and general items for all readers.

The *Journal* is published under the auspices of the officers and the names of the editors do not appear.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

White Supremacy.

The superiority of the white race is well established. It is frequently discussed from all view-points, from that of the peanut politician to that of the political economist. Up to now the Southern section of this great country has held a paramount interest in the subject, owing to the large proportion of the inferior race in its population. The South also has given the grandest demonstration of the difference in the caliber of the races by attaining, politically and otherwise, supremacy for the whites within twenty years after a war which had decimated the white population and had enabled its enemies to place the blacks in power. With the increase of white immigration in the South and the migration of the blacks northward, interest in the race problem has been becoming gradually more general and at the same time more uniform. The question can be studied more calmly and fairly. It may be now taken up on a scientific basis.

Medicine, including in the term allied and accessory branches of study, throws much light on the subject. It shows that the white is superior to the black because of a better brain. The white man's brain is better because it is susceptible of more development. If this were all, it might be argued that this difference might diminish through evolution as the blacks profit by their increased and now pretty equal advantages of education and advancement. Such, however, is not the case. The white man's brain is capable of more development because his skull does not harden or ossify as early as the black man's. As soon as the bony container of the brain has completely solidified, there is no further possibility of expansion of its contents and as this process occurs later in the white than in the black race, in the long run the former will have more brain than the latter. Of course quantity is not everything,

but, all else equal, it gives a decided advantage to the whites, as it does not interfere with improvement or quality.

Europeans in general do not understand what they consider a prejudice on our part against the negroes, merely on account of the color of their skin. They see comparatively few of them and those are the best educated, frequently of mixed blood. It is refreshing to note that when our friends across the pond know more of the negro they, like the Northern people similarly placed, modify their views considerably. In this connection it was edifying to hear Dr. Calmette, a truly scientific man and an observer without bias, express himself, while here recently, clearly and convincingly as to the superiority of the white race, basing his conviction on a careful comparative study and especially on the difference in the period at which the bones of the skull finally solidify.

This significant anatomic difference fortifies the argument against miscegenation, and, while showing the wisdom of the laws forbidding it and of customs fighting social equality of the races, insures white supremacy here and elsewhere.

The Long Journey.

The inevitable is death; theories may help to postpone the dissolution, but nothing yet has come to stop the grim destroyer, not even Metchnikoff. It is interesting, though, to sit in at the watch with Metchnikoff and to follow his musings and reasonings of what might have been and what may be. It is instructive to learn why some men and women have lived beyond the estimated limit of three score and ten and the reasonings deduced by Metchnikoff. He makes us take notice of the fact that there is some real explanation for long lived people and sour milk comes in for its share of distinction. We all, meanwhile, sit by and carry our own reflections. We see the grizzled goose of extraordinary years, and have known the terrapin of unknown periods, and we have watched the spark go out in the aged, like a candle in its socket in the night, with a sputter and a sigh—and all of it seemed just right. But the flowers die, and nature builds all of its forms upon decay, the old must make way for the young and if the young were young always there would be none old, and there would be no cycles as with

the other types of animal-kind. But Metchinkoff has written a wonderful book*—and he has pointed the hopefulness of a satisfied desire if we will only follow his rules of conduct and of diet.

The Rosicrucians were right, then, and their austere rules were only the expression of a premature wisdom foreseeing some of Metchnikoff's modern interpretation of the knowledge accumulated for over nineteen centuries.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of DR. P. MICHINARD and DR. C. J. MILLER, New Orleans.

OPERATIVE TREATMENT OF PUERPERAL PERITONITIS AND THROMBOPHLEBITIS.—Leopold has now had an experience of 18 cases in which he applied operative treatment, with recovery of 13 of the women (mortality, 27%); external causes were responsible for the fatalities in nearly every instance. He reviews this material and tabulates it under various headings, emphasizing the importance of gonorrheal infection shortly before or during the pregnancy as fraught with greater danger for the confinement than is generally supposed. In such women high fever may develop with signs of beginning peritonitis as early as the third day after delivery or not until the sixth day. The tardy fever is especially characteristic of gonorrheal infection, and may soon lead to death from acute peritonitis or thrombophlebitis. Especially dangerous are the prolonged hemorrhages after abortion, particularly when associated with fever; after expulsion of the ovum acute peritonitis or thrombophlebitis may develop. The gravest signs of this are the high, small pulse, hiccough, vomiting and chills. Of subordinate importance are abdominal pain, meteorism and, with thrombophlebitis, pain at the obturator foramen and edema of the feet and legs. Acute puerperal peritonitis indicates, not later than the third day, opening into the abdominal cavity to evacuate the pus. In every case Douglas' cul-de-sac should be opened, irri-

* *The Prolongation of Life. Optimistic Studies*, by ELIE METCHNIKOFF. English Translation Edited by P. CHALMERS MITCHELL, M. A., D. Sc., Oxon, etc., and G. P. Putnam's Sons, New York and London.

gated and drained. It is also useful to drain the abdominal cavity in the flanks. If the peritoneum is not involved, puerperal purulent thrombophlebitis should be treated by ligation and incision of the thrombosed, pus-filled vein. The best method here is the transperitoneal. The proper moment for it has arrived when chills indicate that the thrombi are crumbling and are being swept along. In view of the fact that after a benign course of thrombosis of the femoral vein or the external iliacs on one or both sides, pyemic fever may develop later, he advocates early ligation of the iliac or the ovarian veins or even of all four. It should be recognized that the danger from the thrombophlebitis is far more threatening than that from the operation. Delay, however, reduces the resisting powers beyond redemption.—*Journal of the A. M. A.*

C. J. M.

IMPORTANCE OF SUPRARENAL PREPARATIONS IN OBSTETRICS.—New relates extensive experimental and clinical research on the influence of suprarenal preparations on the uterus. His findings confirmed the results of Kurdinowski's experiments with the isolated uterus kept alive with Locke's fluid and injected with a suprarenal preparation. The weakest concentration—1 or 5 to 20,000,000 parts—affects the uterus more energetically than ergot or other drugs regarded as specific uterine tonics. It is a powerful stimulant for the human uterus in all stages of its development and under all conditions. The uterus responds to injection of suprarenal preparation into its muscle tissue with vigorous contraction and constriction of its vessels, this effect persisting for several minutes. The action of the preparation on the human uterus is thus dual; a purely muscular and a vasoconstrictor action, although either may predominate. The vascular phenomenon is generally most pronounced, but the muscular reaction persists longer. He found it possible to perform Cesarean section on animals after such an injection without loss of blood. Experiments with uteri just removed and clinical experiences confirmed the results on animals, showing that we have in the suprarenal preparations an extremely valuable means to combat atony and hemorrhage. The dose required for local application is too small to induce a general reaction of any consequence. The injection is best made, he thinks, through the abdominal wall into the muscular substance of the body of the uterus. Injection into the cervix or

intrauterine instillation yields inconstant results. He has never observed any by-effects with this intramuscular injection of 0.0001 to 0.0003 gm. of the suprarenal preparations. Their principal field is to combat acute hemorrhage after expulsion and atony from inefficient labor. The old uterine tonics generally fail here on account of the delay in their action, while the suprarenal preparations act instantaneously. With this "percutaneous uteromuscular technic" the injection is made at a point on the median line about two finger-breadths below the umbilicus, pushing the needle through the abdominal wall into the uterine muscle, with care not to push it too far. In cases of extreme relaxation of the uterine supports the uterus may have sunk down and back far enough to allow loops of intestine to fall between the abdominal wall and the body of the uterus. But this is very exceptional. As a rule, the uterus is in anteflexion and rests against the abdominal wall, while the empty bladder is down and out of the way. He warns repeatedly that the suprarenal preparations should never be injected into a vein nor allowed to get directly into a vein in any way.—*Ibid.*

C. J. M.

Department of Internal Medicine.

In Charge of Dr. E. M. Dupaquier, New Orleans.

SOLUTION TO STIMULATE NUTRITION IN CHILDREN.—Variot remarks in his journal, *La Clinique Infantile*, that the arsenical compounds discovered by Armand Gautier, viz, the sodium cacodylate and arrhenal, have an extremely favorable action towards stimulating nutrition and growth in young children.

But the sodium cacodylate can hardly be given otherwise than subcutaneously and all practitioners familiar with child practice know that the puncture of a hypodermic needle generally provokes shrieks and screams out of proportion with the actual pain. Mothers, moreover, generally side with their children when the doctor has the candor of proposing or attempting the hypodermic treatment for their little ones.

Up to 6 or 8 years, it is preferable to resort to arrhenal, which is a veritable succedaneum of the sodium cacodylate, and which

is perfectly tolerated by the stomach of young children. Here is a formula which has seemed very handy:

Distilled water	100 cc.
Arrhenal,	O gm. 10
Syrup of Quinquina	50 cc.
(Cinchona.)	

Two teaspoonfuls for children from 18 months to 2 years. Given after noon meals.

One tablespoonful for children from 2 to 4 years.

Two dessertspoonfuls for children from 4 to 8 years.

These doses, somewhat smaller than those suggested by Ormand Gautier, have seemed sufficient to excite the nutritive processes. It commonly occurs that after ten days the garlic smell due to the medicine disappears.

One must not prolong this excellent treatment beyond two weeks, resuming it after a pause of from two to three weeks.

Arrhenal is one of the most active drugs we have at our command to strengthen anemic children with poor nutritive processes (hypotrophy), emaciated, suspects of tuberculosis.—(*Journal de Medecine et de Chirurgie Pratiques*, 10 Nov., 1908).

RUSTY NEEDLES. In some of the packages of the various sera I handled lately, I found rusty needles. This is very unpleasant. All good practitioners hate to hurt more than it is necessary, and no one would think of stabbing an oversensitive babe or child with a rusty needle. The delay in sterilizing and cleaning the needle anew is an imposition on the doctor's time and the child's nerves. "*A bon entendeur, salut.*" Give us clean needles. E. M. D.

ARTHRITISM. The old-fashioned "Arthritic diathesis" is a good working formula in practice. When we conceive the family relations of arterio-sclerosis, asthma, chronic bronchitis, chronic cardiopathies, diabetes, dyspepsia, gout, hysteria, biliary lithiasis, urinary lithiasis, Bright's disease, migraine, neurasthenia, neuralgias and arthritis, bunched under that head *arthritism*, we not only look for inter-relations and the co-existence of two or more of these conditions in the patient, linked together, but we stand on a firm platform to act intelligently. We treat the diathesis, which is at the bottom of these various conditions, apparently separated by the same general basic treatment and by the same symptomatic treatment of certain special forms, such as the fluxionary and painful

syndroms, common to all the conditions mentioned above. Drugs are limited to iodine, arsenic, sulphur, quinine, aspirin, antipyrin and morphine. The main reliance is on physiotherapy and hydro-mineral treatment. But psychotherapy, here, as in all other instances, is a valuable auxiliary in treatment. Physiotherapy and psychotherapy are now on the program of the course on therapeutics by Prof. Gilbert in the University of Paris, "Conferences Pratiques," by competent instructors, and I guess in four months' time the boys learn some because they are taught some.

THERAPEUTIC VALUE OF THE TUBERCULINS. The report on the "Therapeutic value of the Tuberculins," which Dr. S. Bernheim of Paris (France) presented at the last Congress of Tuberculosis, held in Washington, D. C., is well worthy of notice and review, and it is a regret that space will not permit the publication of the report in full.

Dr. Bernheim is the head and founder of "Œuvre de la Tuberculose Humaine," which corresponds to our Anti-Tuberculosis League and which is a powerful philanthropic society of all the anti-tuberculosis dispensaries in France a branch of the "Alliance of Social Hygiene."

Dr. Bernheim and his associate, Dr. Barbier, have first given in their report a remarkable historical account of tuberculin, bearing on the various preparations and the study of the therapeutic value of each. It is certainly a most interesting chapter. Then, they take up the study of the tuberculin of Jacobs (T. J.) in extenso.

Their conclusions are the following:

First—Of the two methods of immunization against tuberculosis, the *passive (at once transient) immunization or serotherapy*, and the *active (slow) immunization or tuberculin therapy*; it is this last method which seems to us to be the desirable therapeutic method, according to the present state of knowledge.

Second—Amongst the tuberculins, the most desirable are those which contain the toxins to be found in the bacillary bodies themselves (tuberculins of Beranek, of Jacobs); indeed, these seem to possess the most immunizing properties.

Third—The action of the tuberculin essentially depends, as has been shown by Sahli, *on details* in the treatment, and in the manner of use (gradual and prudent increase of the doses, avoiding any reactions).

Fourth—The tuberculin-therapy can only give good results with patients the *organic resistance* of whom is sufficient to help the defensive reaction and secure the final success.

Fifth—Of all the tuberculins which are recommended and which have been tried (more than ten thousand injections of tuberculin Jacobs is our record), that of Prof. Jacobs seems to us the easier to use, the less dangerous to be administered and also the most efficient in the treatment of the various manifestations of the clinical varieties of tuberculosis..

Dr. Jacobs is not French. He is from Brussels, Belgium, and the tuberculin Jacobs has been prepared in his laboratory since 1897. Besides Belgium, England, Switzerland and France are the countries where it has been tested by a number of physicians.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

ANTIMENINGITIS SERUM.—The discovery of an antimeningitis serum by Drs. Flexner and Joblin of the Rockefeller Institute for Medical Research, and the favorable results obtained in the first few cases treated with it, have been widely heralded by both the medical and the general press, especially as its introduction in the therapy of meningitis was followed by a new instance of munificence on the part of the founder of the institute. The actual results following the use of the serum, however, have been very hard to judge, the nature of the disease furnishing individual physicians but limited material from which conclusions could be drawn. The discoverers of the serum have supplied it to physicians on the express condition that full reports of the cases in which it was used should be sent them, and in the *Journal of Medical Research* for September 5, 1908, they analyze the reports of several hundred cases so treated. These cases occurred in different parts of the United States, Canada and Great Britain, either as sporadic instances of the disease or during epidemics of varied severity and extent. The mortality of the disease in both epidemic and sporadic form was about 75%, though it was not uniform everywhere, severe outbreaks being reported in some

localities while others seemed to have suffered from infection of a rather low virulence. Everywhere, however, the use of the serum was followed by diminution of deaths from the disease. Thus in Akron, Ohio, there were nine deaths out of the first ten cases, a mortality of 90%; serum was employed in the next twelve cases, and of these there were nine recoveries, a mortality of 25%; in Scotland and Ireland the mortality in the cases treated without serum ranged between 75 and 90%; the cases treated with the serum showed mortalities varying from 26.7 to 44.5%; even when all fulminant cases or those moribund at the time of the injection of serum were included.

Of the total 393 cases considered in the analysis there were 75% of recoveries. Children under one year gave 50% mortality, while previous to the use of the serum Holt reported that of twenty under one year in the hospital wards not one recovered, and Koplik states that of twenty-seven such cases observed by him twenty-three either died or were discharged unimproved. In addition to these figures giving the general mortality of the disease under the application of the serum, the authors present much evidence that testifies to the promptness of recovery and the greater frequency with which complete cures were obtained when such sequelae as deafness, blindness, and mental impairment are considered. In general, the success attending the use of the serum fully justifies the conclusion of the authors that "antimeningitis serum when used by the subdural method of injection in suitable doses, and at proper intervals, is capable of reducing the period of illness, of preventing in large measure the chronic lesions and types of infection, of bringing about complete restoration to health in all but a very small number of the recovered, thus lessening the serious deforming, and permanent consequences of meningitis and of greatly diminishing the fatalities due to the disease."—*Medical Record*.

J. A. S.

Department of Nervous and Mental Diseases.

In Charge of DRs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

THE CEREBRO-SPINAL FLUID IN GENERAL PARALYSIS.—(*Review of Neurology and Psychiatry*, Mar. 11, 1908).—Fifty-three cases of general paralysis were subjected to a careful examination, and the writer noted the following: There was lymphocytosis by the method of Widal in fifty-two cases. The specimens were stained by the Leishman stain, which served to differentiate the types of cells. The only other form of insanity in which the lymphocytosis occurred was syphilitic insanity, and then only when the disease was active. In three cases examined, one only showed lymphocytosis; this case made a good recovery. The only case which could have been mistaken for general paralysis showed no lymphocytosis. The amount of serum albumin varied from .05% to .4%, the average being .15%. The presence of serum albumin is common to many forms of insanity. The writer has invariably found it in chronic alcoholism and in certain cases of epilepsy and organic brain disease. In the cases where serum albumin occurred not associated with symptoms of dementia paralytica, its disappearance was followed by recovery; its persistence was considered a sign of unfavorable prognosis. The writer made careful bacteriological examinations in every case, and failed to find any evidence of Dr. Ford Robertson's bacillus paralyticans. All of his cultures were negative. He concludes that the presence of lymphocytes, to the extent of lymphocytosis, and plasma cells is diagnostic of general paralysis, and urges its use in the diagnosis of this disease.

VAN W.

A FURTHER CONTRIBUTION TO THE HERPETIC INFLAMMATIONS OF THE GENICULATE GANGLION, ETC. (J. RAMSAY HUNT, *Am. J. of Med. Sc.*, Aug. 1908, p. 226.)—In this paper, the author elaborates in detail the syndrome previously described by him, of which the distinctive features are herpes zoster oticus, facialis or occipitocollaris, with facial palsy and auditory symptoms. There are various clinical types which may be fused into a single large group. The underlying pathology is a specific inflammation of ganglia of the spinal (unipolar) type, including, in addition to the

geniculate, the ganglia of the acoustic nerve and possibly those of the glosso-pharyngeal and vagus. Emphasis is put on the fact that mild inflammatory reactions may be present in ganglia above or below the chief focus, producing pains but not eruptions in their zones. He regards the gasserian, geniculate, acoustic, glosso-pharyngeal, vagus, second, third and fourth cervical ganglia, as embryologically, histologically. and clinically a series or chain (the acoustic only differing in having bipolar cells), and concerned in the production of the syndrome. A hemorrhagic inflammation in any one will be followed by the usual manifestations of herpes zoster, the eruption being on its respective zone. The term herpes oticus should be confined to those cases where the eruption is confined to the cone-shaped zoster zone of the geniculate ganglion (the tympanum, auditory canal, concha, and an adjacent marginal area on the external surface of the auricle). The other features of the syndrome come from the proximity of the geniculate ganglion to the facial and terminal divisions of the auditory nerve, the inflammation extending to these by contiguity of structure, the effects being enhanced by the enclosure of these structures in a common sheath, situated in a narrow osseous canal. Hence the facial palsy and symptoms referable to the auditory nerve, which are of two types—hypo-acousis merely, or symptoms resembling Meniere's disease, tinnitus, deafness, vertigo, vomiting, nystagmus, and disturbances of equilibrium.

VAN W.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

[NEXT MEETING, NEW ORLEANS, MAY 4, 5, 6, 1909.]

The following committees have been appointed by the President:

PUBLICATION COMMITTEE.—Dr. E. M. Hummel, ex-officio chairman; Dr. W. W. Butterworth, Dr. M. H. McGuire.

COMMITTEE ON SCIENTIFIC WORK.—Dr. E. M. Hummel, ex-officio, chairman; Dr. H. B. Gessner, Dr. S. M. D Clark, Dr. Gordon King, Dr. W. T. O'Reilly, Dr. V. C. Smith, Dr. S. K. Simon, Dr. L. L. Cazenavette, Dr. Joseph Hume.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.—Dr. Charles Chassaingnac, chairman; Dr. J. M. Barrier, Delhi; Dr. J. L. Wilson, Alexandria.

MEDICAL EDUCATION.—Dr. John Callan, chairman; Dr. L. Abramson, Shreveport; Dr. G. Farrar Patton, New Orleans.

CARROLL RESOLUTIONS.—Dr. Quitman Kohnke, chairman; Dr. W. J. Durel, Covington; Dr. C. Z. Williams, Covington.

CANCER OF THE UTERUS.—Dr. Paul Michinard, chairman; Dr. C. Jeff Miller, New Orleans; Dr. G. J. Sabatier, New Iberia; Dr. Numa Himel, Welcome; Dr. B. A. Littrell, Opelousas.

TO CONFER WITH LOUISIANA BAR ASSOCIATION.—Dr. Isadore Dyer, chairman; Dr. Charles Chassaingnac, New Orleans, Dr. E. J. Graner, New Orleans.

DELEGATES A. M. A., 1908.—Dr. Charles McVea, Baton Rouge; alternate, Dr. W. W. Butterworth; 1909, Dr. Oscar Dowling, Shreveport, Dr. H. L. Ballowe, Buras.

TO INVESTIGATE AND REPORT ON THE JOURNAL QUESTION:—Dr. Henry Dickson Bruns, New Orleans, chairman; Dr. Isaac J. Newton, Monroe; Dr. P. L. Thibaut, New Orleans; Dr. Wm. M. Perkins, New Orleans.

NEW ORLEANS, JAN. 14, 1909.

To the Members of the Louisiana State Medical Society:

GENTLEMEN:—The Attakapas Clinical Society met in Crowley the 13th of January. Five parishes were represented, and though the meeting was by no means as well attended as it should have been, due possibly to the inclemency of the weather, nevertheless it was one of the best and most enthusiastic meetings ever held by a component society in the State. The papers read and the discussions which followed were above the average. That all present were deeply interested in the proceedings was apparent from the fact that, though the meeting lasted four hours, not a member left.

After the meeting the members adjourned to the Pizzini Hotel, where a banquet was held and where all joined in to make the social feature as great a success as was the clinical.

The officers of the society deserve credit for the work which they have done in building up the organization, and unquestionably it is a stride in the right direction. Component parish societies have proven a failure, due undoubtedly to the fact that physicians

within close proximity are either governed by the petty jealousies, which, sad to relate, are so common in the profession, or know each other so well that they think it unnecessary to go to a meeting to discuss matters which seemingly to them are of little interest. But by forming together a number of parish societies a wider territory is covered, more men will get together and many of the petty prejudices, too often founded on false reports, will be overcome.

The members of the society who failed to attend this meeting have much to regret, and it is to be hoped that the next meeting, which will be held in Lake Charles some time in April, will be attended by every member of the society.

It is unfortunate that the public cannot be educated to the importance of these meetings, and the necessity of the profession meeting frequently to discuss the advanced strides in both medicine and surgery. Possibly if they did, they would not only make it easier for the members to attend these meetings, but would even insist for their own good that they do so.

The Attakapas Clinical Society is organized on the right lines. It is exactly what it claims to be, and if the members will show the interest that they should in the subsequent meetings it will soon become a powerful factor in the organization of the profession and one which is bound to wield a powerful influence for good in the State organization.

The question of affiliation with the State Society will be looked into and undoubtedly will be arranged. I believe that this plan of organizing a number of parishes into one society is far better than the organization of single parish societies, which has proven a failure, and if it can be carried out the State can be divided into a number of districts, including so many parishes in each, which will always insure a good attendance at the meetings, and unquestionably better solve the problem of organization than our present system.

The members of this society are to be congratulated, and if they will carry out the promises made at this meeting, there is little doubt that the State Society will profit by their efforts. Respectfully,

(Signed.)

E. DENEGRE MARTIN, President.

ORLEANS PARISH MEDICAL SOCIETY NOTES.

Dr. William H. Seemann, president of the Orleans Parish Medical Society, has appointed the following committees for 1909:

JUDICIARY—Dr. Arthur Nolte, chairman; Dr. George S. Bel, vice chairman; Dr. F. J. Chalaron, Dr. A. G. Friedrichs, Dr. E. J. Graner, Dr. Paul Gelpi, Dr. H. P. Jones, Dr. Edmund Moss, Dr. P. L. Thibaut, Dr. C. A. Wallbillich.

SCIENTIFIC ESSAYS—Dr. W. W. Butterworth, chairman; Dr. M. Couret, vice chairman; Dr. L. L. Cazenavette, Dr. J. A. Danna, Dr. L. R. De Buys, Dr. George Dock, Dr. H. B. Gessner, Dr. Gordon King, Dr. L. M. Provosty, Dr. N. F. Thiberge, Dr. J. J. Wymmer.

PUBLICATION—Dr. C. P. Holderith, ex-officio, chairman; Dr. Howard D. King, Dr. Homer Dupuy.

HOUSE—Dr. Howard D. King, chairman; Dr. Charles P. Holderith, Dr. Homer Dupuy.

STATE MEDICINE AND LEGISLATION—Dr. John Callan, chairman; Dr. P. E. Archinard, vice-chairman; Dr. John J. Archinard, Dr. H. D. Bruns, Dr. Charles Chassignac, Dr. Ernest S. Lewis, Dr. John F. Oechsner, Dr. W. T. O'Reilly, Dr. F. W. Parham, Dr. W. H. Robin.

LIBRARY—Dr. Homer Dupuy, ex-officio, chairman; Dr. C. Jeff. Miller, vice-chairman; Dr. W. H. Block, Dr. S. M. D. Clark, Dr. L. B. Crawford, Dr. S. C. Landauer, Dr. Lucien H. Landry, Dr. Isaac Ivan Lemann, Dr. Joseph D. Martin, Dr. P. B. Salatic, Dr. J. A. Storck.

AUDITING—Dr. Joseph T. De Grange, chairman; Dr. L. D. Archinard, Dr. A. J. Babin, Dr. J. A. Henderson, Dr. M. Thomas Lanaux, Dr. A. Noha, Dr. Hermann Oechsner.

MORTUARY—Dr. George F. Cocker, chairman; Dr. W. B. Clark, Dr. W. A. Gillaspie, Dr. Gustav Keitz, Dr. Jules Lazard, Dr. W. G. Troescher, Dr. George H. Upton.

PRESIDENT'S ADDRESS—Dr. Louis Perrilliat, chairman; Dr. E. F. Bacon, Dr. E. D. Friedrichs, Dr. E. W. Mahler, Dr. W. T. Richards, Dr. Victor C. Smith, Dr. Arthur Weber.

SECRETARY'S REPORT—Dr. L. E. De Poorter, chairman; Dr. P. W. Bohne, Dr. W. H. Harris, Dr. Wm. Nothacker, Dr. George F. Roeling, Dr. C. F. Sauter.

TREASURER'S REPORT—Dr. J. J. Ryan, chairman; Dr. Carroll W. Allen, Dr. Louis Canepa, Dr. Wallace J. Durel, Dr. J. I. Hunter, Dr. Louis Levy, Dr. J. D. Tuten.

LIBRARIAN'S REPORT—Dr. Felix A. Larue, chairman; Dr. L. C. Chamberlain, Dr. J. C. Derbofen, Dr. E. M. Dupaquier, Dr. F. R. Gomila, Dr. Seaton Norman, Dr. R. W. Salter.

Medical News Items.

THE ORLEANS PARISH MEDICAL SOCIETY HELD ITS ANNUAL INAUGURAL MEETING on the night of January 9. There was an excellent attendance of members, as also several invited guests, to participate in the addresses of the retiring and incoming officers and that of the orator of the occasion, Mr. Garland Dupre. The retiring officers, consisting of Dr. Amadee Granger, president; Dr.

C. P. Holderith, secretary; Dr. Homer Dupuy, librarian; Dr. E. L. Leckert, chairman of the committee on scientific essays, and Dr. Sidney K. Simon, treasurer, severally reported, the gist of their communications stating that the total net membership on January 1, 1909, was 292; there were 7,312 volumes in the library and 160 files of periodicals; that 68 original papers had been read during the year and that a balance remained in the treasury in spite of the fact that the revenues of the society had been reduced on account of the absence of a tenant for the ground floor. Six members had died during the year and due honor had been done their memory.

The new officers of the society, who were installed at this meeting, are as follows: President, Dr. W. H. Seemann; first vice President, Dr. B. A. Ledbetter; second vice president Dr. E. H. Walet; third vice president Dr. E. L. Leckert; secretary, Dr. Charles P. Holderith; treasurer, Dr. Howard D. King; librarian, Dr. Homer Dupuy; additional members of board of directors, Drs. J. M. Batchelor, Amedee Granger, G. Farrar Patton.

In accepting the office of president, Dr. Seemann appropriately received the honor and briefly reviewed the history of the society, calling particular attention to the scientific work which had more recently been done and its recognition abroad. The other officers were severally presented and installed.

After the installation of officers, Mr. Garland Dupre, Speaker of the House of Representatives of the Louisiana Legislature, was introduced as the orator of the evening. Among numerous points of humor and of wisdom brought out in the speaker's address, a special mention was made and force was laid on the matter of medical experts, in criminal trials particularly, and the suggestion offered that the medical profession of Louisiana might act now in this matter, as the Criminal Code and Code of Practice were being revised. At the conclusion of the address Mr. Dupre was unanimously elected an honorary member of the society, and extended a vote of thanks.

Refreshments followed the meeting and the informal adjournment was late.

THE CENTRAL TEXAS DISTRICT MEDICAL ASSOCIATION met at Waco on January 12 and 13, 1909, with an exceedingly interesting program.

THE AMERICAN SOCIETY OF TROPICAL MEDICINE will hold its sixth annual meeting in Washington during the first week in April. All interested in this meeting may communicate with Dr. John M. Swan, secretary, at No. 1818 Lombard street, Philadelphia, Pennsylvania.

THE PRESBYTERIAN HOSPITAL CLINIC. The Presbyterian Hospital of New Orleans dedicated the commencement of their institution at No. 628 Carondelet street, New Orleans, on Tuesday, January 14, in the presence of a large attendance of ministers and laymen interested in the work of the organizers of this institution. Addresses were made by representatives of the sectarian and medical professions and the occasion was distinguished by a message of good will delivered by the Mayor of the city, Mr. Martin Behrman. The board of managers and medical staff has been announced as follows: Dr. Barr, president; Alfred Raymond, secretary-treasurer; George Egdorf, T. S. Witherspoon, Dr. Norwood Street, Rev. J. W. Caldwell, Jr., Rev. Chas. L. Nourse and J. S. Talmedge.

The medical board, as at present constituted, consists of: Dr. John E. Oechsner, chairman; Dr. D. L. Watson, secretary; Dr. C. Jeff Miller, Dr. E. L. McGehee.

The visiting staff, to be further elaborated later on, consists of: Department of Medicine—Dr. E. L. McGehee, chief, with Dr. J. T. Halsey, Dr. G. Farrar Patton and Dr. C. C. Bass.

Department of Obstetrics—Dr. D. L. Watson, chief; Dr. R. J. Mainegra, Jr.

Department of General Surgery—Dr. John F. Oechsner, chief, with Dr. H. B. Gessner, Dr. W. M. Perkins, Dr. P. W. Bohne, Dr. E. L. Leckert.

Department of Gynecology—Dr. C. Jeff Miller chief, with Dr. R. D. Schimmelpfennig.

THE CARTWRIGHT PRIZE. This biennial prize of five hundred dollars of the Association of the Alumni of the College of Physicians and Surgeons, Medical Department of Columbia University, New York, open for universal competition, will be awarded at commencement, 1909. If no one of the competing essays is deemed sufficiently meritorious, the prize is not awarded. An essay, in order to be held worthy of the prize, must contain the original investigations made by the writer. This prize is not awarded to any essay which is the work of more than

one author, or which is at the same time submitted for another prize, or that has been previously published in any form. It must be on a medical, surgical or kindred subject. Each competitor is required to send with his essay a statement that these requirements have been complied with. Essays in competition for this prize must be sent to the undersigned on or before April 1, 1909. Competing essays must be in typewriting and they must be in English, marked with a device or motto, and accompanied by a sealed envelope similarly marked, containing the name and address of the author. The payment of the prize money to the successful essayist will be made on his filing with the treasurer of this association a printed copy of the essay.—H. E. HALE, M. D., Secretary of the Association of the Alumni of the College of physicians and Surgeons, 752 West End Avenue, New York City.

MEETING OF CALCASIEU MEDICAL SOCIETY. The Calcasieu Medical Society met in Lake Charles, January 7, in the office of Dr. T. H. Watkins, and had an interesting meeting.

THE AMERICAN JOURNAL OF CLINICAL MEDICINE for January is an unusually attractive presentation of the efforts of a progressive and wideawake group of editors and, incidentally, it celebrates the fifteenth anniversary of the Journal under its various names.

APPROPRIATION FOR IMPROVING MOBILE QUARANTINE STATION. Mobile, Alabama, has received an appropriation of \$50,000.00, to be used for the purpose of improving the quarantine station at that place.

PHILIPPINE SERVICE—The United States Civil Service Commission announces an examination on February 17-18, 1909, at the New Orleans custom house to secure eligibles from which to make certification to fill 7 vacancies in the position of medical inspector, \$2,000 per annum each, in the Philippine service, and vacancies requiring similar qualifications, as they may occur in that service, at salaries ranging from \$1,200 to \$1,800 per annum.

Certain allowances for travel are made to district health inspectors, and in some of the hospital positions other allowances are made, depending upon the nature of the work.

The examination will consist of the subjects mentioned below, weighted as indicated:

<i>Subjects.</i>	<i>Weights.</i>
1. Letter-writing (the subject matter to be upon a topic of medical or surgical interest)	5

2. Anatomy and physiology (regional and minute anatomy, general physiology, the physiologic functions and relations of organs)...	10
3. Surgery and surgical pathology (general and special surgery, surgical diagnosis, pathology, treatment and technic).....	20
4. Chemistry, materia medica and therapeutics (organic and inorganic chemistry, the preparations, dosage, and application of drugs to the treatment of disease).....	10
5. Bacteriology and hygiene (the technic of bacteriological laboratory methods and the practical application of the principles of bacteriology and hygiene to prophylaxis and treatment).....	15
6. General pathology and theory and practice of medicine (the etiology, pathology, symptoms and treatment of diseases, especially those of the tropics).....	20
7. Obstetrics and gynecology (the general practice of midwifery, and the etiology, symptoms and general medical and surgical treatment of diseases of women).....	5
8. Experience, training and fitness (rated on the statements submitted by the applicant in his application paper).....	15
Total.....	100

Time allowed, two days of 7 hours each. The first four subjects will be given on the first day, and the remaining subjects on the second day.

Applicants must indicate in their applications that they are graduates of reputable medical colleges. Training and experience which would adapt the applicants to take supervision of quarantine work in the provinces is desirable; also a knowledge of Spanish.

Applications which are not received in time for this examination will be placed on file for the examination to be held on March 10-11, 1909.

Age limit, 18 to 40 years on the date of the examination.

The medical certificate must be filled in by some medical officer in the service of the United States. Applicants should appear before medical officers of the Army, Navy, Indian or Public health and Marine-Hospital Service. If such an officer cannot be conveniently visited, a pension examining surgeon may execute the certificate. Special arrangements have been made with pension examining boards throughout the country to give such examination for a fee of \$2, to be paid by the applicant. *This certificate must not be executed by the family physician of the applicant.* The medical officer should indicate his rank or official designation on such certificate.

Each applicant for the Philippine Service will be required to submit to the examiner, on the day he is examined, a photograph of himself, taken within three years, which will be filed with his examination papers as a means of identification in case he receives appointment. An unmounted photograph is preferred. The date, place and name of examination, the examination number, the competitor's name, and the year in which the photograph was taken should be indicated on the photograph.

This examination is open to all citizens of the United States who comply with the requirements.

This announcement contains all information which is communicated to applicants regarding the scope of the examination, the vacancy or vacancies to be filled, and the qualifications required.

Applicants should at once apply either to the United States Civil Service Commission, Washington, D. C., or to the secretary of the board of examiners at any place mentioned in the printed list, for application Forms 2 and 375. No application will be accepted unless properly executed and filed with the Commission at Washington. In applying for this examination the exact title as given at the head of this announcement should be used in the application.

As examination papers are shipped direct from the Commission to the places of examination, it is necessary that applications be received in ample time to arrange for the examination desired at the place indicated by the applicant. The commission will therefore arrange to examine any applicant whose application is received in time to permit the shipment of the necessary papers.

NUMBER OF DEATHS IN THE U. S. AND CANADA NOTICED IN *Journal A. M. A.* FOR 1908.—In 1908 there were 2,261 deaths noticed in *Journal A. M. A.* in the United States and Canada, making a death rate of 17.39, based on an estimate of 130,000 doctors. The principal causes were heart disease, violence, pneumonia and cerebral hemorrhage, in the order noted.

INSANE IN THE STATE OF NEW YORK.—In the State of New York there are now some 30,000 insane in public and private hospitals, and it is estimated that 20% of these, or 6,000 patients, owe their insanity to alcohol. There are 150,000 insane in the United States, and assuming the same percentage, there are 30,000 individuals in this country in whom alcohol has brought about insanity. Dr. McDonald calculates that one insane person is an approximate loss to the State of \$400 per year. Hence the actual loss in money to the State of New York through alcohol insanity would be \$2,400,000, and to the United States, \$12,000,000 every year.

CHICAGO'S NEW LAW.—Chicago's new law demands the pasteurizing of all milk sold in that city.

THE CARNEGIE PENSION FUND.—The Carnegie Pension Fund is really a deferred salary annuity and will be so regarded by instructors and trustees. All elements of charity, courtesy or selection of a type that might embarrass the beneficiaries have been removed.

AN ANNOUNCEMENT BY THE LOUISIANA STATE BOARD OF HEALTH.—Persons interested in pure food and drug regulations may obtain gratis from the Louisiana State Board of Health, 1004 Perrin building, New Orleans, La., copies of the pure food and drug regulations of the State of Louisiana, as now in force. Persons applying by mail will please enclose 2c postage.

TO AID LEPERS' HOME.—Le Cercle Harmonique will give a concert for the benefit of the Lepers' Home on February 12. The most brilliant local talent has volunteered to contribute to its success and a very interesting programme is promised.

PERSONALS.—Dr. J. B. Guthrie gave a lecture on the "House Fly and Its Relation to Public Health," January 7, at the Progressive Union Hall.

Dr. E. De Nux, of Bunkie, La., lost his office by fire. No insurance.

The Delgado operating rooms will be named for Drs. Lewis and Matas.

Dr. J. W. Jones, of Jackson, La., at one time superintendent of the Jackson Insane Asylum, was elected chairman of the local Board of Health. The doctor is in his 83rd year.

Dr. John N. Thomas is now superintendent of the Hospital for Insane, at Pineville, La.

Dr. Jos M. Matthews, for the past sixteen years president of the Kentucky State Board of Health, has resigned.

Surgeon-General of the Army Riley has retired, and Dr. G. H. Torney has succeeded him.

Dr. C. E. Edgerton, of Coushatta, La., had the misfortune to lose office and instruments by fire, January 9.

Dr. W. E. Sistrunk and Dr. G. Holcombe, of this city, have located in Lake Charles, La.

Dr. J. B. Hargrove, of Natchitoches, has been elected president of the Parish Board of Health.

Dr. E. H. Shall, Birmingham, Ala., after serving twenty-five years as a member of the Board of Censors, resigned in January.

Dr. J. W. Largent, of McKinney, Tex., has been elected president of the North Texas Medical Association for 1909.

Dr. A. M. Haas, of Haasville, La., has been appointed a member of the Insane Asylum Board of Pineville, La.

REMOVALS.—Dr. S. D. Wall has moved from Slaughter to Eola, Texas.

Dr. C. C. Self, from Crows to Barham, La.

Dr. L. E. Knighton has moved from Homer, La., to Shreveport.

MARRIED.—Dr. Clark Hilton Rice, of Summit, Miss., and Miss Julie Hamilton, of this city, were married at the residence of the bride on December 30, 1908.

Dr. T. S. Jones, of St. Francisville, La., and Miss May Reiley, of Clinton, La., were married on January 17, at the home of the bride.

DIED.—Dr. Samuel Reed Dunn, of Greenville, Miss., sixty years of age, and one of the noted physicians of Mississippi, died at his home on December 21, 1908.

Dr. Sam H. Hicks, of Shreveport, died from a gunshot wound, December 29, 1908.

Dr. Frederick W. Dortch, of DeRidder, La., died from chronic nephritis in the Shreveport Sanitarium on December 30, 1908.

Dr. Ernest Capdau died on Sunday, January 17, 1909, aged thirty-three years.

Dr. A. C. Smith, of the U. S. P. H. and M. H. Service, died in Pittsburg, Pa, January 16, from the effects of a fall from a horse. The doctor was favorably known in this city, having been stationed here at one time

OBITUARY.—Dr. Francis Wroatte Marshall, a native of Rapides Parish, died on November 7, 1908, in his 88th year, at Alexandria, La., at the residence of his daughter, Mrs. B. M. Pearce. Dr. Marshall graduated from the University of Louisiana in 1849. In 1851 he was married to Miss Mary Eleanor Chambers, which union was blessed with ten children, of whom one son and four daughters survive.

Dr. Marshall was a lineal descendant of distinguished French ancestry identified with the early settlement of Louisiana. The ramifications of his collateral relatives identify Dr. Marshall with many of the best citizens of Louisiana history. The JOURNAL condoles with the bereaved survivors of Dr. Marshall's family.

TULANE NOTES.

FOUNDERS' DAY.—Founders' Day is announced for March 6. President Eliot, of Harvard, is expected to deliver the address of the occasion. As complimentary to the celebration of Founders' Day, the meeting of the Tulane Alumni Association will be held on March 5, and the alumni dinner on the evening of March 6.

TULANE INSPECTED.—Dr. N. P. Colwell, secretary of the Council on Medical Education of the A. M. A., visited New Orleans January 9, to inspect the Tulane Medical Department. He was accompanied by Mr. A. Flexner, representing the Carnegie Foundation interests. Both the gentlemen were afforded opportunity of seeing all that could be shown in buildings, equipment and organization of the department, and they seemed favorably impressed with the advance made in the past two years.

EXTENSION LECTURES.—Feb. 3.—Dr. J. H. WHITE, U. S. Public Health and Marine Hospital Service, "*Epidemics, Isolation and Quarantine*":

Feb. 10—Prof. GEORGE E. BEYER, "*Insects*." (1)

Feb. 17—Prof. W. H. DALRYMPLE, Louisiana State University "*Diseases Common to Animal and Man*."

Feb. 24—Prof. GEORGE E. BEYER, "*Insects*." (2)

Mar. 3—Major GEORGE G. EARL, Superintendent New Orleans Sewerage and Water Board, "*Water Supply and Disposal of Refuse*."

All members of the medical profession and the interested public are invited. *All Lectures* at the HUTCHISON MEMORIAL, No. 1551 Canal street, WEDNESDAYS, at 8 p. m.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

General Surgery. By EHRICH LEXER, M. D., and ARTHUR DEAN BEVAN, M. D. D. Appleton & Co., New York and London, 1908.

This valuable text book on Surgery is as stated, a presentation of the scientific principles upon which the practice of modern surgery is based. It is a German work by Professor Lexer of the University of Konisberg, translated by Dr. Dean Lewis, Assistant Professor of Surgery in Rush Medical College in affiliation with the University of Chicago.

Our esteemed friend, Dr. Bevan, who is Professor and head of the Department of Surgery in the above named Chicago medical institution, is the editor of this American edition. They jointly deserve the thanks of the medical profession for presenting in the English language, as Bevan justly states in his preface, a most complete presentation of the present status of the science of surgery.

Timely subjects have been added to the Lexer edition such as chapters on blastomycosis, blood examination in surgery, opsonins and the Wright vaccination treatment.

Crile's direct transfusion of blood is given due space.

The chapters on tumors are in themselves worth the purchase of the book. We note the mention made on page 25, with an accompanying illustration, of Halsted's subcuticular stitch. If we mistake not that stitch is originally the Chassaignac suture of year 1851 (*vide* N. O. MED & SURG. JOURNAL, September, 1896, page 180). Halsted, no doubt deserves the credit of having popularized this cosmetic suture.

The work, which is published on the finest paper and clearest print, abounds in illustrations, many of which emanate from Bevan's clinics. The reviewer is so impressed with the solid value of this work that he recommends it most highly to his confreres, especially those interested in surgery.

LARUE.

Surgery. By JOHN A. WYETH, M. D., LL. D. Marion Sims Wyeth & Co., Publishers, New York, 1908.

This is one of the most practical works on Surgery we have ever perused. It is a combination, as it were, of didactic and clinical teaching in a style that is pleasing and lucid. The work consists of 800 pages with more than that number of illustrations interspersed. These are all excellent. The sympathetic author has affectionately dedicated this volume to the memory of that great American surgeon, J. Marion Sims. On the frontispiece is a full-sized likeness of that good and eminent man standing on the plain, but appropriate monument, erected in one of the parks in the City of New York.

LARUE.

The Pancreas, Its Surgery and Pathology. By A. W. MAYO ROBSON and P. J. CAMMIDGE, of London. Published by W. B. Saunders & Co., Philadelphia and London.

This work which has recently been given to the profession is one of the most valuable contributions to medical literature. No organ in the body has received more attention or been treated with more respect by the internist and surgeon in recent years than the pancreas. Many of the cases of chronic gastritis, or intestinal disturbance and epigastric pain have been accounted for by a study of this gland. In this treatise the pancreas is viewed from every point. The anatomy, embryology, histology, physiology, pathology, as well as the surgical anatomy and chemical pathology and all the injuries and pathological changes to which it is subjected, are fully described, the authors quoting not only from a wide personal experience but from all the literature on the subject to date. Nothing could be more interesting than the chapters on chronic pancreatitis and cancer, showing the difficulty of diagnosis between the two and the great importance of surgical interference in the former, which is curable. The book is written in an easy, fluent style, with excellent print and illustrations.

MARTIN.

Treatment of Internal Diseases. By DR. NORBERT ORTNER (Univ. of Vienna. Edited by N. B. POTTER, M. D. (New York). Translated by F. H. BARTLETT, M. D., from the fourth German Edition. J. B. Lippincott Company, Philadelphia and London.

These lectures are from the authorized pen of one of the most prominent clinicians of the famous school of Vienna, containing advances made in the therapy of internal diseases. Reliable information, abundant discussion of many points of practice, remarks, additions and comments between brackets by our American editor, who has also added a section upon the Therapy of Neurasthenia, go to make a good book. Chapter XV is given up to the Therapy of Infectious Diseases by Dr. Ferdinand Fruhwald.

The Editor's remarks on "the profusion of prescriptions and the author's apparently perfect trust in so many drugs" is interesting. Indeed, the Nihilists may smile, but, *Trahit sua quemque voluptas*—is still true, as long as it does not hurt. Enlightened faith, tentative enthusiasm accomplish more than the radical doctrine bent on dismissing every effort onward, in just as crude a manner as the "*Magister dixit*" of the Middle Ages.

E. M. D.

Milk and Its Relations to the Public Health. By various authors. Government Printing Office, Washington, D. C.

This is Bulletin No. 41 of the Hygienic Laboratory, issued in January, 1908, by the Treasury Department, Public Health and Marine Hospital Service of the United States.

The introduction is written by Walter Wyman, the Surgeon General, P. H. & M. H. S.; and, then follows a series of no less than twenty-one articles or monographs, the superior of which it would be hard to find in scope and data. The illustrations and charts are not only abundant, but extremely instructive. The whole report is a mine of information on the multiple aspects of the milk question. E. M. D.

Principles of Surgery, by STUART MCGUIRE, M. D., Publishers: Southern Medical Publishing Co., Baltimore.

This work arranged in a series of fifty lectures, deals with one of the most important subjects both to the physician and the student. For the practitioner, nothing is easier to forget than the principles of surgery, and yet nothing is more important to remember. For the student, the "*Multum in parvo*" is a necessity. The author, himself a lecturer, evidently recognizing this fact, has arranged his lectures with a view of making them valuable to both. The etiology, pathology, symptomatology and the diagnosis and treatment of surgical diseases and injuries is systematically arranged and though the subjects are condensed, no important essential seems to have been omitted. It is written in excellent style, fluent, yet simple, and has every requisite to recommend it to the profession. MARTIN.

Diseases of the Heart, by TH. VON JURGENSEN, of Tübingen; DR. L. KREHL, of Greifswald, and DR. L. VON SCHROTTER, of Vienna. Edited with additions, by GEORGE DOCK, M. D. W. B. Saunders, Philadelphia and London.

One of the volumes comprising Nothnagel's Practice, translated from the German under the editorial supervision of Alfred Stengel, M. D., Professor of Clinical Medicine in the University of Pennsylvania. It is certainly a remarkable work and the editor deserves credit for the manner in which he has carried out his part. Scientific interest and profit, sound learning, wide clinical experience, broad training and additions of new matter of interest, are words from the editor's preface which certainly express but the truth about this work. E. M. D.

International Clinics, Vol. IV., Seventeenth series. By leading members of the Medical Profession throughout the world. Edited by W. T. LONGCOPE, M. D., Philadelphia. J. B. Lippincott Company, Philadelphia and London.

The usual high-class series of lectures are apparent here as in all other volumes of this great quarterly, on treatment, medicine, surgery, gynecology, genito-urinary diseases, orthopedics, neurology and otology.

E. M. D.

International Clinics, Vol. I., Eighteenth Series.

In addition to the usual valuable lectures appearing in this great quarterly, this volume contains the progress of medicine during 1907 in treatment, medicine and surgery.

E. M. D.

The Internal Secretions and the Principles of Medicine. Second volume, by CHARLES E. DE SAJOUS, M. D. F. A. Davis Company, Philadelphia, 1907.

Dr. Sajous has undertaken a stupendous work in his endeavor to prove the part that the internal secretions play in the internal economy. That this side of physiology is just in the dawn of its importance is due to no lack of investigators, but to the difficulty experienced in carrying out proper experiments. And it is just here that we wish to call attention to the value of close clinical observation; for, without it, much that we know of the subject of which this book treats could never have been written.

No less an authority than Pawlow pays high tribute to the value of clinical observation in the determination of clinical facts. It is along these lines that Sajous has labored, and in so doing has started us on the right road to a proper elucidation of this complex and difficult subject.

The numerous references to the literature of the subject and its many quotations enhance the value of the book.

To the careful student of internal medicine this work will prove of considerable value.

STORCK.

Diagnosis by the Urine. By ALLARD MEMMINGER, M. D., Third Edition, Enlarged and revised. P. Blakiston's Son & Co., Philadelphia, 1908.

The fact that this little book has passed to a third edition entitles it to consideration. We find the information contained herein trustworthy, and, moreover, arranged in convenient form. The scope of the book is such that it occupies the middle ground between the larger works on urinalysis and the special treatises on disease of the kidneys.

STORCK.

Therapeutics; Its Principle and Practice. By H. C. WOODS, M. D., LL. D., thoroughly revised and rewritten by H. C. WOOD, JR., M. D. Fourteenth edition. J. B. Lippincott Co., Philadelphia and London.

When a book has gone through fourteen editions in thirty years, as a rule we may take for granted that it supplies an existing demand. The many readers of Dr. Wood's book are the best witnesses of its excellence. Like most books of its class, it is better as a book of reference than as a book from which the student should first learn the actions and uses of drugs, but the articles in it are well written and show that the authors have a comprehensive and exact knowledge of both the clinical and the theoretical sides of the subject.

J. T. H.

Therapeutics of the Circulation. By LAUDER BRUNTON, Kt., M. D., LL. D. P. Blakiston's Son & Co., Philadelphia.

Sir Lauder Brunton occupies almost an unique position among medical men, in that he combines, in his own person, the qualifications of a pharmacologist of high repute and the experience of a physician, who for years has practiced medicine as a general practitioner and consultant. This makes everything that Dr. Brunton writes on matters of treatment especially worthy of consideration and the work under review is among the most noteworthy of his more recent productions. The fact that this book is essentially a reproduction of a course of eight lectures delivered to medical students makes the matter in part very elementary and technical, thus causing it to be somewhat less interesting than some of his other writings, but the reviewer cannot too highly recommend its perusal to either undergraduate or graduate students of medicine. There is probably no subject connected with the work of the general practitioner which is of more importance than the treatment of the disorders of the circula-

tion, and unfortunately and with little justification, there are few matters about which there prevail more misconceptions. The reviewer believes that a careful perusal of this little book will well repay any physician who wishes to review this important branch of treatment and that its perusal will help to make clear to him the answer to many a question which he often is called upon to answer, at least in his own thoughts about his own cases. We notice with regret that the care and management of the circulation in acute infectious disease does not receive as much attention as we believe it deserves.

J. T. H.

Pathology, General and Special. A manual for students and practitioners. By JOHN STENHOUSE, M. A. B., and JOHN FERGUSON, M. A., M. D. Lea Bros. & Co., Philadelphia and New York.

A Quiz Compend such as this work essentially is cannot be of much value to a general practitioner and the reviewer is of the opinion that such books do students more harm than good. This special example does not seem to be either better or worse than others of its class, nor does it seem to call for any special mention in these columns.

J. T. H.

Materia Medica and Therapeutics. By JOHN V. SHOEMAKER, M. D., LL. D., Sixth Edition. Thoroughly revised. F. A. Davis & Co., Philadelphia.

The pharmacological portion of Dr. Shoemaker's book, in the the reviewer's opinion, leaves much to be desired in the way of clearness and completeness, nor does it always represent correctly the present state of knowledge of the action of drugs from the physiological point of view. The therapeutic portion will, he is sure, leave the reader with the impression that drugs may do many things, which in practice he will not be able to witness. The lack of perspective and proportion also are often conspicuous and, for the undergraduate student at least, distinctly disadvantageous. The latter part of the book, which deals with non-pharmaceutical remedies, is distinctly the best portion and does much to redeem the defects of the rest of the work.

J. T. H.

A Text-Book of Human Physiology, Theoretic and Practical. By GEORGE V. N. DEARBORN, M. D., 309 illustrations. Lea & Febiger, Philadelphia and New York, 1908

This is the first appearance of this work on physiology, and it seems to be worthy of a continued existence. The arrangement of the text does not follow the beaten paths of physiological text-books, but it covers the ground very well, notwithstanding. The author states that he wrote the work primarily for medical and dental practitioners and students; he emphasizes, however, "the mechanism of sense-organs, nerves and muscles as the basis of the individual's efficiency; and it is the first text-book of medical physiology to recognize the more and more insistent demands of the mental process." Dr. Dearborn's work can be commended as a clear, general exposition of the subject, the only suggestion that we are inclined to make is that the section on the urine be made somewhat more thorough, for that is a matter that possesses great interest to the clinician throughout his whole career.

McSHANE.

Anatomy, Descriptive and Surgical. By HENRY GRAY, F. R. S. Seventh edition, re-edited with additions. By JOHN CHALMERS DA COSTA, M. D., and EDWARD ANTHONY SPITZKA, M. D. Lea & Febiger, Philadelphia and New York, 1908.

Not to know Gray is to argue one's self unknown. More than one generation of medical men owe the foundation of all their medical knowledge to Henry Gray. A correct knowledge of human anatomy is indispensable

to a proper medical education. Anatomy is needed at all stages of a medical man's career; and *Gray* not only invites the student into the secrets of medicine, but accompanies him through all the phases and developments of his career, whether in general practice or surgery, or in any of the numerous specialties that have grown from the truth of medical science. The present edition, while retaining all of the valuable features of its predecessors, contains some improvements, which have been made necessary by our advance in anatomical knowledge, and which make *Gray's Anatomy* what it has always been—the foremost systematic treatise on human anatomy in the English language. Among the changes introduced we notice the adoption of the international nomenclature side by side with the old style, that has been hammered into the minds of hundreds of thousands of medical students. The nervous system has of late contributed most largely to the increase of anatomical knowledge; hence it is in this section of *Gray* that we find the most numerous and important additions to the standard text. This part of the work is from the hand of Dr. Spitzka, one of the foremost neurologists of the world. The text is from the hand of a master in neurology, and the numerous illustrations, plain and colored, go a great way towards elucidating the subject that has always been the most difficult part of anatomy. The illustrations leave no phase of the subject untouched. The value of colors in depicting the circulatory apparatus is apparent; but without them it would be no easy matter to trace out the bundles of nerve-fibres, their relations to nuclei, and, generally, to enable the student, as Spitzka puts it, to “conceive in his own mind the nerve structures in the three dimensions of space.”

The lavish liberality of the publishers is apparent in all parts of this work. It is, indeed, one of the greatest monuments of a great publishing house, and one which reflects great credit upon their judgment and professional pride.

McSHANE.

Intestinal Auto-Intoxication. By A. COMBE, M. D. (Lausanne). Together with an appendix on the lactic ferments, with particular reference to their application in intestinal therapeutics, by ALBERT FOURNIER. Only authorized English adaptation, by WM. GAYNOR STATES, M. D. Rebman Company, New York

This is an exhaustive treatise on the subject of auto-intoxication of gastro-intestinal origin. Dr. Combe pays a merited tribute to Bouchard, who first revealed to the profession the vast possibilities that lay in auto-intoxications of all kinds. Combe elaborates one phase of the subject, namely, auto-intoxication of gastro-intestinal origin, and carries it further than any other writer. He carefully follows the course and destiny of the ingesta, and traces every departure from normal digestion to its source, and goes minutely into the methods of detection and modes of treatment. His section on therapeutics is remarkably explicit; his dietaries are carefully arranged according to scientific indications, and no phase of the subject is left untouched as far as present-day knowledge goes.

The importance of gastro-intestinal intoxication can hardly be overestimated. When we recall that tuberculosis is well nigh impossible without a previous period of gastro-intestinal intoxication, we can at once realize that we can not devote too much time and care to the subject in hand. Dr. Combe's work is a thorough presentation of an important subject.

McSHANE.

A Manual of Obstetrical Technique, With a Chapter on Abortion, Premature Labor and Curettage. By JOSEPH BROWN COOKE, M. D. Sixth edition. J. B. Lippincott Co., 1908.

This little volume can be recommended to nurses as a concise, practical guide to the various details of obstetrical nursing. The author has

enlarged the present edition; in fact, he states that the rapid progress in modern obstetrics has necessitated rewriting almost the entire text. The illustrations are good and well selected. MILLER.

Applied Surgical Anatomy. By GEORGE WOOLSEY, A. B., M. D. Second edition, enlarged and thoroughly revised. Lea & Febiger, New York and Philadelphia, 1908.

This recent volume presented to us by Woolsey is a very commendable work, as it is not only instructive, but of a practical value. It is on the line of that masterly work of Tillaux. Many of the cuts are borrowed from the latter, as also from Joessel and Merkel. It is profusely illustrated, as becomes a work of this character.

The chapters on cranio-cerebral topography and on the spinal cord have been given an up-to-date retouching. LARUE.

Publications Received.

P. BLAKISTON'S SON & CO., Philadelphia.

The Urine and Clinical Chemistry of the Gastric Contents, the Common Poisons and Milk, by J. W. Holland, M. D. (Eighth Edition).

Surgery of the Upper Abdomen (in two volumes), by John B. Deaver M. D., LL. D., and Astley Paston Cooper Ashhurst, M. D. Vol. I:

Surgery of the Stomach and Duodenum. Vol. II: in active preparation.

J. B. LIPPINCOTT COMPANY, Philadelphia and New York.

International Clinics. Vol. I. (Eighteenth Series.)

Essentials of Medicine, by Chas. Phillips Emerson, M. D.

LEA & FEBIGER, Philadelphia and New York.

The National Standard Dispensatory, by Hobart Amory Hare, B. B. Sc., M. D.; Chas. Caspari, Jr., Ph. G., Phar. D.; Henry H. Rusby, M. D.

W. B. SAUNDERS & COMPANY, Philadelphia and London.

Surgery, Its Principles and Practice, by various authors. Edited by Williams Keen, M. D., LL. D., and John Chalmers Da Costa, M. D. Vol. IV.

MISCELLANEOUS.

J. B. Lippincott Company's *Catalogue of Medical and Surgical Publications*, Saunders' Books, a descriptive catalogue of medical and surgical works. (Illustrated).

Scientific Laboratory Help in Diagnosis. The Abbott Alkaloidal Co. (The Clinic Publishing Co., Chicago).

A Doctor's Symphony, by Geo. F. Butler, M. D. (Dedicated to the medical profession and offered simultaneously to its press).

Hepatozoon Perniciosum (U. G., N. SP.); *A Haemogregarine Pathogenic of White Rats; With a Description of the Sexual Cycle in the Intermediate Host, A Mite* (Lelaps Eschidrunus), by W. W. Miller, (Washington Government Printing Office, 1908).

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans,
FOR DECEMBER, 1908.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	7	2	9
Intermittent Fever (Malarial Cachexia)	1	3	4
Smallpox.....			
Measles.....			
Scarlet Fever.....	1		1
Whooping Cough.....			
Diphtheria and Croup.....	1	2	3
Influenza.....	4	1	5
Cholera Nostras.....			
Pyemia and Septicemia.....	4	1	5
Tuberculosis.....	33	43	76
Cancer.....	28	6	34
Rheumatism and Gout.....	1	1	2
Diabetes.....	1	1	2
Alcoholism.....	3		3
Encephalitis and Meningitis.....	9	2	11
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	19	8	27
Paralysis.....	2	3	5
Convulsions of Infants.....	1		1
Other Diseases of Infancy.....	23	13	36
Tetanus.....	2	3	5
Other Nervous Diseases.....	1		1
Heart Diseases.....	50	21	71
Bronchitis.....	7	3	10
Pneumonia and Broncho-Pneumonia.....	21	29	50
Other Respiratory Diseases.....	4	4	8
Ulcer of Stomach.....			
Other Diseases of the Stomach.....	6	2	8
Diarrhea, Dysentery and Enteritis.....	29	7	36
Hernia, Intestinal Obstruction.....	1	1	2
Cirrhosis of Liver.....	9	2	11
Other Diseases of the Liver.....	3	1	4
Simple Peritonitis.....	2	1	3
Appendicitis.....	4	3	7
Bright's Disease.....	29	13	42
Other Genito-Urinary Diseases.....	7	1	8
Puerperal Diseases.....	2	2	4
Senile Debility.....	14	7	21
Suicide.....	6	2	8
Injuries.....	21	17	38
All Other Causes.....	23	12	35
TOTAL.....	380	217	597

Still-born Children—White, 17; colored, 14; total, 31.

Population of City (estimated)—White, 258,000; colored, 93,000:
total, 351,000.

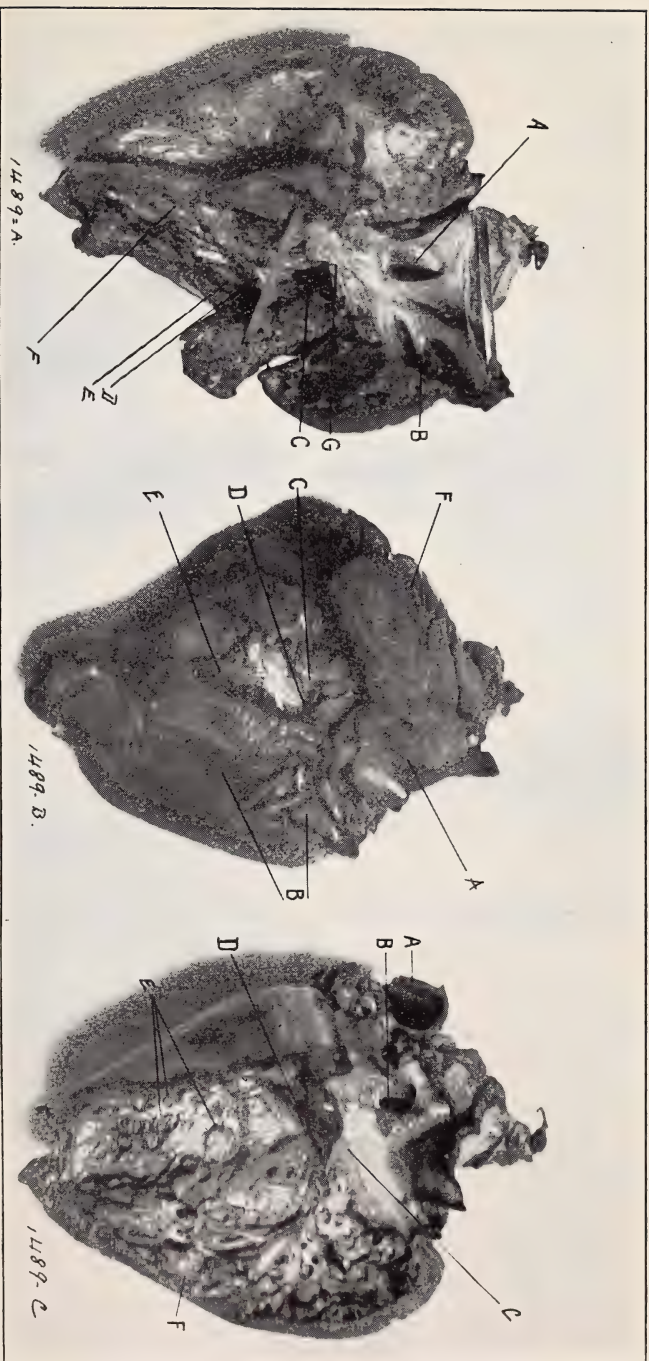
Death Rate per 1000 per annum for Month—White, 17.67; colored,
28.00; total, 20.41.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.14
Mean temperature 60.
Total precipitation 1.79 inches.
Prevailing direction of wind, north.



Fig. 4. DR. COURET'S ARTICLE.
(See February Number.)



- A. Patulous foramen ovale.
- B. Rt. auricle and appendage.
- C. Defective interventricular septum.
- D. Myocardial septum dividing R. ventricle into two.
- E. Chamber from which emerges pulmonary artery.
- F. Right ventricle.

- A. Aorta.
- B. Pulmonary artery above and below incomplete valve.
- C. Tricuspid valve.
- D. Opening between ventricles.
- E. Wall of right ventricle.

- A. Aorta.
- B. Patulous foramen ovale.
- C. Mitral valve.
- D. Interventricular opening below leaf of valve.
- E. Globose thrombi in ventricular wall.
- F. Left ventricle.

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Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Excision of the External Organs of Generation for Intractable Pruritis.*

By ERNEST S. LEWIS, M. D., New Orleans.

Some subtle influence must have been at work, or it may be that persuaded, willy nilly, by the persistent insistence of the chairman of your committee on essays, I find myself here to-night in a new role, as a contributor to the evening's entertainment of a short paper on a well threshed subject, neither novel nor startling, but presenting some surgical points of interest. All of you are familiar with pruritus vulvæ, which in an exaggerated form is often rebellious to all therapeutic medication and a reproach to medical art. No greater martyrdom can be suffered by a woman than this tormenting itch, making of life a long drawn, nerve wracking torture and burden. Not surprising that to its credit we find recorded instances of nervous prostration, insanity and suicide. The causes of this disease have been variously ascribed to irritating discharges

* Read before Orleans Parish Medical Society, Nov. 28, 1908.

from the genital tract, bladder and rectum and numerous pathological conditions of these organs; to skin affections of the external parts; to hyperemia; to the irritation from short hairs on the inner surfaces of the labiæ; to friction from exercise in stout subjects; to gout and rheumatism and diabetes; to atrophic changes attending the menopause; to kraurosis; to products of faulty metabolism and other disturbing agents in the blood; to high living and chronic alcoholism, and upon failure to determine any one of these causes, the medical conscience is satisfied to consider it a neurosis.

The case in point relates to a Mrs. B.—, aged 35 years and married, with a history of four abortions and three deliveries at term. Up to seven years ago she enjoyed exceptionally good health, though frail in appearance and weighing but 110 lbs. Of late years she has increased in weight 40 lbs., which she ascribed to her enforced sedentary life. Her general health at present is still good, though nervous and despondent and subject to attacks of indigestion. She is somewhat anemic and her tissues soft and flabby. The pruritus followed an accidental abortion seven years ago. At first of slight degree and intermittent, it gradually grew in intensity with shorter intervals between paroxysms and for the past four years has assumed a degree of constancy and severity which has taxed her patience and endurance to the limit, and that she came prepared for any ordeal, however dangerous, even to the removal of her uterus and ovaries if the operation gave a promise of cure from a life of misery. She described her family history as good, with no inherited neuroses or diatheses. She had run the gauntlet of physicians at home and elsewhere for treatment with but brief intervals of relief. She had been curetted four times for a supposed leucorrheal origin; had used innumerable ointments, lotions and douches to no purpose; had followed a diet and taken medicated baths; had had X-ray treatment and the faradic and galvanic currents applied; had been cauterized with nitrate of silver and dilute nitric acid, the effects of which were manifest in cicatricial areas about the mons and labiæ. A careful examination of thoracic, abdominal and pelvic regions gave negative results, excepting slight congestion of the uterus unattended with soreness on pressure and easily accounted for by the mechanical irritation of the vulva, but not enough to direct special attention to that

organ. The labiæ were swollen, edematous and excoriated in parts and with cicatrized areas. The mere touch of the vulva provoked the itching. The history was sufficient to discourage one from any further attempt at medical treatment, but conscience forbade the employment of heroic measures without further trial. She was under medical treatment for three weeks, during which time carbolic and bi-chloride douches were employed; lotions of sugar of lead and wine of opium; vaginal ichthyol tampons; ichthyol in full strength applied to the external parts and also argyrol, cocain and a variety of ointments; special attention was given to diet and general health. At the expiration of the three weeks obtaining no results, I proposed excision of the external parts, to which she gladly consented. She was directed to the Hotel Dieu Sanitarium and prepared for the operation, which was performed on October 26. Drs. Holcombe, Salatich and Marion Souchon assisted. The operation designed was the removal of a part of the mons, the labiæ majoræ and minoræ, clitoris and vestibule.

OPERATION: From about an inch and a half above the superior commissure an incision was made extending downward along the outer borders of the bases of the labiæ majoræ to the posterior commissure; then with the point of the scalpel a crescentic incision was made a few lines beyond the urethral orifice above and to the side and extended downward along the inner surfaces of the bases of the nymphæ and meeting the outer boundaries of the incision at the posterior commissure. The apex of the incision was then seized with forceps and the dissection proceeded with, the vessels being clamped as divided. (As you may see from the specimen here shown the tissues removed consisted of integument, fat, fascia, clitoris, greater part of vestibule and labiæ majora and minora.)

The wound was very large and gaping, but was readily closed without tension. The closure was begun at the apex until base of vestibule was reached, the integument was then attached to the crescent convexity of the border of mucous membrane left purposely around urethral orifice. The edges lower down were sutured in the same way. When completed there was no appearance of deformity. The urethral and vaginal orifices were not exposed. Pads of a weak solution of bichloride were applied to the vulva, a self-retaining catheter introduced and directions given to irrigate the parts with a weak solution of bichloride frequently during the

day. This patient recovered without any untoward symptoms. She remained about a month under observation without any return of her trouble and returned home a very happy woman.

I recall an intractable case of chronic pruritus in the wife of a physician, treated by me years ago, by the application of a 60 grain solution of nitrate of silver to the ounce, which was followed by permanent relief. Skene reports a case cured by a strong spray of equal parts of carbolic acid and tincture of iodine twice applied. Infiltration of the tissues with Schleich's solution has been used successfully and also a spray of iodoform and ether. Hirst reports two cases cured by resection of the nerves going to the vulva. The operation performed in this case was first proposed by Schroeder with plastic repair of the parts.

The Cutaneous Tuberculin Reaction and Von Pirquet's Doctrine of Allergy.*

By GEORGE DOCK, M. D., New Orleans.

In selecting the topic I have, I intend to speak this evening of the broader relations of the cutaneous reaction. I have here two patients who have had the operation done on them. One shows no reaction, the other, a tuberculous subject, exhibits a fairly characteristic red papule from the full strength tuberculin. Another and more illustrative patient disappointed me by not coming. Those who wish to follow the course of the tests will be welcomed in the Charity Hospital any morning, and a report of the results will be made public later.

The operation in question resulted from the investigations of von Pirquet in vaccination. This was soon followed by the exploitation of the conjunctival reaction by Wolff-Eisner and Calmette, and the ease of performing the latter test, and the sweeping claims made for it, prevented many from investigating the claims of the cutaneous test. Moreover, the reserve with which von Pirquet announced the latter was not likely to stimulate so many to practice it. Within the last year, however, a number of clinicians have taken it up. The method consists in putting a drop of old tuberculin on the cleansed skin, scarifying through the drop, and making a control without tuberculin. In from six to

* Read before Orleans Parish Medical Society, Nov. 28, 1908.

twenty hours in positive cases, sometimes as late as two or three days, a gradually increasing swelling appears at the site of the operation. The papule is red, at first with indistinct outlines, later becoming circumscribed. It usually reaches its height in 48 hours, and subsides in from five to twenty days. From the fourth to the eighth day a small vesicle sometimes appears on the summit of the papule. The circumscribed redness may be from 4 to 50 millimeters in diameter. A pigmented scar, with slight branny desquamation, persists for two or three months after the operation. The circumscribed redness and the infiltration are the most important features of the reaction.

Von Pirquet found the reaction in all clinically recognizable cases of tuberculosis in children, except those in the last few days of life. In adults he was disposed to attribute less importance to the test because of the large proportion of people who have latent tuberculosis. Since then, a number of investigators have repeated the test in children and have come to the same conclusion. A positive reaction is generally found to be evidence of tuberculosis. Negative results are not so conclusive and in suspicious cases should be disregarded and repeated tests made. There is no relation, apparently, between the extent of the lesion and the character of the reaction. Small foci sometimes give the best reactions. Cases of cutaneous tuberculosis and scrofuloderma sometimes give a severe reaction, going on to scab formation. Phlyctenular eruptions have also been seen in cases of mesenteric gland tuberculosis. Reinoculation is sometimes followed by fresh injection of blood-vessels at the site of the former operation. Patients who have been treated by tuberculin sometimes fail to react.

Many have tried the test in adults and with results that agree in general. The proportion of positive cases is larger than in children, but several observers think these are not the results of wholly latent, much less harmless, tubercles. As compared with the other recent modifications of the tuberculin test, the cutaneous method is less unpleasant and undoubtedly safer than the ophthalmo-test. It appears to be somewhat more exact than Moro's inunction method. It is easier to perform than the subcutaneous test, does not require the patient to be afebrile, and does not involve the careful temperature observations of the lat-

ter, but it lacks the local reaction so valuable in the hands of a careful examiner, and at present it is not sufficiently differential.

Many experiments must be made before a final conclusion can be drawn. Among unsettled details is the matter of strength of solution. Some prefer a 25 per cent. solution, others, including von Pirquet, think the best results can be obtained by careful study of the reaction with full strength tuberculin. The observations I am carrying out, with the assistance of my colleagues in the hospital and Dr. Lyons, are made with a "pool" tuberculin which is also being used by a number of other clinicians in various parts of the country. We work with 5, 10 and 100 per cent. solutions, with a control. In addition to this series, I intend to make some control inoculations with the bovine tuberculosis. Perhaps I should refer to the reports of histologic tubercles that have been described by Zieler following the test. These are by no means evidence of live bacilli in the solution, but can be explained by non-infectious elements in the material.

Before final conclusions can be drawn it is certain that much hasty work will be done. Many cases that could be diagnosed by other and readier methods will be tested, often by ill-informed observers, and equivocal or imperfectly observed results will lead to bad diagnoses. At the best, such a test can never take the place of a careful history, an accurate physical examination or a sputum examination. After it has been thoroughly studied, however, we may hope to have an additional method with a distinct place in diagnosis.

THE DOCTRINE OF ALLERGY. As I remarked in the beginning, von Pirquet was led to his cutaneous reaction in tuberculosis as well as other diseases by his brilliant work in the study of vaccination and revaccination. In these conditions, so familiar to all physicians in the last hundred years, von Pirquet seems to have discovered a broader way of looking at some of the most pressing problems of biology and particularly in the field of immunity. Like other discoveries in biology, the work was not entirely new. Besides some of the early vaccinators, quoted by von Pirquet, who made very close observations and almost saw the truth, Arloing, in 1888, with his theory of immunity from soluble products of infectious bacteria, was a forerunner. The "paradox immunity" of

Brieger is based on the principle. Those who worked with guinea-pigs used for testing diphtheria serum were early made aware of the susceptibility of these animals to other inoculations, and Richet's investigations of the action of leech-extract, his discoveries in anaphylaxis, von Pirquet and Schick's work in the serum-disease, and the thorough investigations of Rosenau and Anderson in the latter gave a solid basis for the new work of von Pirquet. In 1906 he suggested the word "allergy" for a clinical alteration of the capacity to react to infection or intoxication. It includes not only immunity, but also hypersusceptibility, and its value becomes clear when we remember the tendency to form too schematic and too antithetic conceptions of those conditions. As illustrations, we may contrast the immunity after typhoid with that after pneumonia, influenza or hay fever, or as a still more obscure condition, that in a syphilitic, in whom there is immunity to a fresh infection, but not to new results of the old infection. The simplest example of allergy is seen in vaccination. Primary vaccinations, assuming similarity of infective material, runs a course that is very uniform, but in revaccination we get various modifications, such as an early but rapidly subsiding lesion, or a slowly forming one. Varioloid can best be explained on the ground of an allergic modification of the body, usually due to vaccination, but sometimes from other causes.

Certain varieties of allergy can be recognized. Thus, we may speak of a chronologic allergy, as seen especially well in the serum disease. The primary reaction occurs in about a week, the secondary in about 8 hours. But whereas the former lasts from one to three weeks, the latter runs its course in about thirty-six hours. Quantitative allergy is most notable in hypersusceptibility, as seen in some persons after injections of therapeutic sera. Qualitative allergy is most remarkable in the difference in symptomatology. So, after a first injection of serum there may be no local symptoms, but fever, urticaria and general anasarca. After the second there may be only a local edema, or there may be alarming collapse. The most conspicuous evidence of allergy is the immediate ability to react, instead of that after a certain lapse of time. The change does not occur at once after the first injection, in experiments or in serum treatment, but after a lapse of ten to twelve days, and it probably returns very slowly to the normal condition. It is best

known from work with horse-serum, but Bier saw it in using hog-serum, and Schlossmann and Salger from ox-serum. The symptoms that occur sometimes after beginning feeding with cows' milk have been explained on the ground of allergy. Von Pirquet speaks of a hypothetic body, "ergin," but does not identify this with any of the other antibodies, and has further experiments as to its nature in view.

Examples of allergy may also be seen in urticaria from insect-bites, possibly the urticaria of gastric disorders, hay fever, and especially in tuberculosis and syphilis, and in the latter especially the long period of incubation, the irregular or wave-like course and the polymorphism of the lesions suggest a varying reaction. Von Pirquet thinks that the nephritis and some other sequels of scarlet fever, the relapses of typhoid, and some other obscure features in various infectious diseases may be results of allergy. The author expressed himself with admirable reserve regarding the diagnostic value of the typhoid cutaneous reaction. It must evidently be worked out there by experiment, as in other diseases. Like so many other modern pathologists, von Pirquet takes a teleologic view of the phenomenon—"the earlier the reaction of the organism the less time has the invader to increase, the more rapidly its development is checked and the less is the injury to the infected body."

"The serum-disease seems to oppose this view, but this may be because subcutaneous inoculation of non-multiplying agents is rare under natural conditions, and the body may not have developed means of defense as fully as in the case of infection with living germs."

The practical value of this change of ability to react has still to be worked out in many diseases besides tuberculosis, but I think enough has been done to open up many suggestive and inviting fields of work.

Plague from the Standpoint of the Sanitarian.*

By J. H. WHITE, M. D., Surgeon U. S. P. H. and M. H. Service, New Orleans.

I can probably tell you nothing which is new in the etiology or symptomatology of plague, and perhaps not in prophylaxis, but if I can arouse your interest as individuals and as a body in the neces-

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sity for our taking notice of existing conditions around us, and provoke such discussion as will fix that interest, then I shall be satisfied.

Plague has been making slow, insidious advances toward us on all sides since 1894, when it invaded the China coast from its endemic focus in Yunnan, and since that time has gained foothold again and again in every civilized nation, to be thrown out each time and then, like the Omaha tramp who was kicked off the train seven times, to again put in its appearance. It threatens us from Venezuela and Ecuador and perhaps from unknown sources.

We have ourselves fought it twice and I am very sure we will have it to fight again unless we can do what no other peoples have ever done, and that is to exterminate all our rats.

Let us briefly glance at the salient points which are important to us from the standpoint of exclusion:

First, we know that plague is likely to appear either as bubonic in about 60% of all cases; septicemic in about 38%, and pneumonic in about 2%—these figures varying in many places, but the order being always the same.

We must try to recognize each variety, because an early diagnosis means a better chance to handle successfully. Note the fact that a bubo, large, hard, firmly adherent to surrounding tissues, exquisitely painful to touch, and not connected with any history of venereal infection, or local injury, nor even of struma, is profoundly suspicious and we cannot and must not put it aside as "not possibly plague because we know that there is no plague present." This will not do, for the manifest reason that we don't know anything of the kind, and I am told by Williamson, of San Francisco, that this is just what happened, and happened in all honesty, with what was probably the original and certainly one of the very early cases in Frisco.

Again remember that a marked chill and a temperature of 102 to 105 degrees, with congested and perhaps swollen face and sunken, anxious eye, strong tendency to purpura, which, as Perry says, is so pronounced that a mustard plaster applied by friends to relieve pain will produce almost immediately a dark, ecchymotic spot the exact size and shape of the plaster, means something serious.

The bubo which is generally confined to one side and is most

often femoral, not inguinal, then axillary, then cervical. These sites correspond exactly to the possibilities of abrasion infection in lower and upper limbs and in the head and neck. In the septic form the symptoms are about the same as in the first, except that there is often no bubo (on the surface) and the disease runs a more rapid course toward the finale of delirium, profound prostration, death.

The pneumonic type, which is fortunately the least common, is profoundly dangerous, because here we have a symptom complex which is practically identical with lobar pneumonia, except that instead of the rusty sputum of the latter, we find a profuse bloody froth, literally loaded with the bacillus in almost pure form, thrown into the air and into the faces of the attendants, giving rise to what is probably the only direct infection, man to man, in this disease, and so closely resembling a beginning violent pneumonia that it may infect a dozen people before found out.

If we do a necropsy on a plague cadaver, we find, no matter which type is under observation, that *the internal lymphatics are involved whether the externals are or not*. We find the general picture of engorgement and hemorrhage, liver and spleen congested and the latter sometimes double normal size. Taylor, of the University of California, characterized it in 1900, as a very "sloppy necropsy," showing punctate hemorrhage in nearly all the viscera, with almost every gland in the lymphatic system giving evidence of the infection in its engorgement and that of connecting vessels.

All know the bi-polar bacillus as it appears stained blue at the ends with the middle uncolored, and that this can be easily isolated from the liver, spleen, kidneys, lymph glands and blood.

Touching briefly on treatment, I would say that the only effective results I have ever seen were obtained through injection of Yersin's serum in doses of 30 c. c., (about 1½) repeated once or twice according to indications. Later in the disease nothing avails to check the mortality of this disease, which ranges from 50% in Europeans to 90% in inferior races.

For a time after the discovery of the *B. Pestis* by Yersin and Kitasato we were still uncertain as to its method of spread, but with the determination that the *Pulex Cheopis* played the host role here that the mosquito does in malaria and yellow fever, we

had the desired knowledge, but alas, were confronted with difficulties innumerable; and I think the author of that fitting characterization, the "elusive flea," must have known his subject well.

All the best research indicates that the vast majority of all cases of plague are transmitted through the agency of the rat flea, except a very small (almost negligible) number by direct contact to mucous membranes, from pneumonic exhalations, and by contact of abraded surfaces with infected material. I strongly doubt the apparently substantiated evidence of infection through food to any considerable extent, though probably a few are so infected, but that the rat host of the flea may get infected through food I do not for a moment question. In other words, the scientific demonstration of food infection stands, but the practical probability of so infecting man is rather dubiously proven.

Now, the rat harbors the flea and the flea infects the rat, which in turn infects other fleas to bite man and infect him also. *Ergo*: If we can watch our rats closely enough to know when the infection begins with them, we need not let it reach man except in the rarest cases, since it is a fact that RATS *first* begin to sicken, and MAN *secondarily*. Heiser tells us that he found this the unbroken rule in Manila.

An epidemic among rats often results in migration of the rodents, thus carrying the disease into fresh soil, or, if they remain in the same place, they seem to acquire a sort of chronic or sub-acute form of the disease unknown to man, and during this period the disease will slow down or apparently die out, and then, upon the advent of fresh material (perhaps) from some other rat colony or from the breeding (perhaps) of young rats, the virus is revived (just as Dunbar attenuated or made virulent his cholera vibriones) and we have a fresh exaccirbation of epidemic. Note that in India

- 1904 showed 1,000,000 deaths;
- 1905 showed 950,000 deaths;
- 1906 showed 330,000 deaths;
- 1907 showed 1,250,000 deaths.

Why? I can not say except perhaps as stated.

One thing, however, I do know, and that one thing is that rats indirectly as flea harborers and fleas directly as plague carriers

are the only enemies we have to fight and so our whole armamentarium is to be trained on these two things. (Note the following, which is from the findings of the Indian Plague Commission, as quoted by Perry:

"1.—They found that healthy rats contracted plague by living near a plague-infected rat, where contact was impossible, but where there was an abundant supply of fleas that could pass freely from rat to rat.

"2.—Healthy rats living in flea-proof cages contracted the plague when fleas collected from a rat suffering from plague in another cage were introduced.

"These two experiments show that plague is transmitted from one rat to another by fleas. Similar experiments have been carried out with guinea-pigs with the same result. When fleas were excluded these animals did not contract plague, although they were in contact with feces and urine from infected animals. Close contact of the young, even when suckled by plague-infected mothers, did not give the disease to the former.

"If fleas are present then the disease, once started, spreads from animal to animal, the rate of progress being in direct ratio with the number of fleas present. Through the agency of the flea plague can be transmitted not only from rat to rat, but also from rat to guinea-pig and vice-versa; also from guinea-pig to monkey.

"It was shown that infection could take place without any contact with contaminated soil. Guinea-pigs were placed in a cage two inches above the floor and developed plague, but when these animals were suspended in a cage at a distance of two feet from the bottom of the cage, at a distance beyond that which a flea can jump, they remained healthy.

"The rat flea prefers rat or the guinea-pig to man, but if neither of these animals are present they will attack man. Advantage has been taken of the fact that guinea-pigs will collect such fleas by placing them in houses in which plague has occurred, and which have been disinfected and vacated, in order to determine whether such houses are safe to be occupied. In many such instances, the pigs have taken sick and died from plague, collecting fleas in large numbers, thereby showing that the disinfection has been ineffective by not killing the fleas that have taken refuge in the cracks of the floor and under sand.

“Rats attack and devour sick and dead rats, and this constitutes a minor way in which plague is transmitted among these animals.

“The next point to be considered is—will rat fleas bite man? That they will has been proven by experiments, and if plentiful will even do so in the presence of their natural host. They have been kept alive for more than three weeks by feeding them on man; also rat fleas have been found on the legs of men sent into rooms infested with them, as well as when sent into houses in which plague had occurred.

“It having been established that such fleas will bite man, how is the infection transmitted? The plague bacilli are contained in the blood they suck in, and they have been demonstrated in the stomach and intestines of both rat and human fleas. Multiplication of bacilli takes place in the stomach of the flea, and they have sometimes been found in the alimentary canal, but nowhere else in the body cavity or salivary glands. The bacilli also exist in the feces of fleas taken from plague rats.

“The flea has the nasty habit of squirting blood from its intestine at the same time it is sucking in blood, and as such contains bacilli, infection probably occurs by scratching and rubbing such discharged contents into the small puncture wound made by the bites.

“Rat fleas leave the dead animal, and being in a starving condition readily assail man or other animal and convey the disease to their new host. It has been noticed that persons who handle rats recently dead of plague contract the disease, while others can handle such rats that have been dead several hours without much risk. The explanation is simple: If the rat has just died, the fleas are still on it and pass to the person handling, whereas, in the other case the fleas have already left the dead body.

“The relation of rat to human plague and the method of transmission from the rat to man by the flea, represents the most recent as well as the most important work done concerning the dissemination and transmission of the disease.

“While most cases of plague of the bubonic type are contracted in this manner, many authorities will not admit it is the method of infection in septicemic plague, and think many cases of the bubonic form are contracted in other ways. We know that plague

is inoculable, unfortunately there have been too many laboratory accidents that prove this, and I cannot see why a certain percentage of cases may not be due to persons with abrasions on their body contracting the disease by coming in contact with infective material."

PROPHYLAXIS:—1.—Destroy rats so far as possible everywhere.

2.—Rat proof all houses.

3.—Protect all garbage and every other food supply of the rat, so he can't get it—starve him.

4.—Divide all cities into convenient districts and here and there from each district every day take a few rats and examine for plague. If any one shows plague, then cordon that district to the extent of a hundred yard radius around the plague spot *and kill every rat in it, no matter what it costs*. Don't cordon the people—just the rats. Start at the circumference with every means in your power—poison, traps, hungry cats, men with clubs, and close in to the center till every rat is killed. This way Heiser destroyed plague in Manila, and this way one rat hunt at an expense of a few hundreds or even thousands of dollars may save a vast population from infection.

It goes without saying that the house and its near neighbors where the infected rat was found, must be most thoroughly disinfected and for this purpose I would recommend my San Francisco procedure—full fumigation with 4% sulphur dioxid regardless of damage, followed by a wash down with 1/500 bichloride of mercury.

The first will kill most of the fleas and the latter will soak the infected rat carcass, and catch fleas burrowing in cracks and dirt.

Naturally, you will, on finding an infection, reduce your daily system of rat testing to blocks instead of whole districts, as you will almost certainly find some other rat foci. We hardly expect to find the original case in man, and certainly not in the rat.

If, unfortunately, your campaign begins with a sick man, you must isolate him at once so that he shall no more here, than in yellow fever or malaria, be allowed to become a nidus of fresh infection by letting fleas get at him.

We cannot temporize with disinfection in plague, and if sulphur and bichloride destroy property it cannot be helped—an out-

break of plague will destroy millions in property and thousands in lives, and especially in a community which lives close to the ground, which has a soil which forces rats to live in the houses, and which has a population largely composed of susceptible people.

Probably the infection of a block occupied by the slum element would necessitate the removal of the population after putting a rat cordon around and then a complete destruction of rats and disinfection of houses, or, better still, to eliminate the whole risk *en bloc* by fire.

Haffkine inoculation is a prophylactic which may be used, but it is open to the objection that if administered to a person in the incubative stage of plague it may seriously jeopardize his chances of recovery. The Yersin in 10 c. c. doses is not open to this objection, but only immunizes for a short while, not over two or three weeks.

Taking the risk above stated, the Haffkine offers an enormous aid in the control of an existing bad situation among a docile people, where we will be permitted to weigh the good of the many against the very few.

Finally, let me sum up thus:

- 1.—We should kill rats *now*.
- 2.—We should examine rats from many sections *now*.
- 3.—We should lose no chance to post the people so that if the hour strikes, they will uphold the health officers of States and cities.
- 4.—We should watch critically all our cases presenting glandular enlargements, or resembling pneumonia, and all nondescript or indeterminate fevers of severe types.
- 5.—We should not be ashamed to consult the pathologist in such cases. He will know when we cannot.

And finally, it should go without saying that in this more than almost any other disease, prompt report to the health officer and loyal support to him is our crowning duty, and nothing less should be thought of—anything else will, in its dire results, constitute both treason and murder.

Final Results in 181 Operations for Inguinal and Femoral Hernia. The Necessity for Resection of the Cremaster Muscle when Hypertrophied.*

By J. M. BATCHELOR, M. D., New Orleans.

There is no classical operation in surgery that, by virtue of its statistically proved value, occupies a more important and steadfast place in the estimation of surgeons than does that operation for radical cure of hernia, which, is to-day, almost uniformly accepted by operators—the operation of Bassini. If surgery has accomplished this triumph for the cure of hernia, it was attained only after many years of endeavor and much groping in obscurity, the result of defective knowledge of the principles of asepsis, combined with a false conception of the true nature of cicatricial tissue, a too vague appreciation of the nature and importance of primary wound healing. For example, in the early days the cure of hernia was attempted by means of pressure—Hood's truss, prominent for awhile, but doomed to that oblivion necessitated through failure. Scarification and sub-cutaneous ligature of the sac, invagination of the scrotum, injection methods, all occupied a brief space upon the surgical stage then passed away. The second epoch, and final one, in the development of the cure for hernia was ushered in by those surgeons who attempted to cure by means of free incision. Many ingenious operations were proposed and most of them proved to be ineffectual. Thus, those designed to cure by the production of a mass of scar tissue to fill the canal, as for example, the granulation method of McBurney. The operation of McEwen also, in which the sac is employed as a plug for the ring. The truer conception of the means necessary to a cure of hernia is idealized in the operation of Bassini, and, to a less degree, by those embraced under the head of the Bassini group. The operation of E. W. Andrews of Chicago, and of Halstead fall in this category, and are brilliant conceptions.

Since December, 1896, I have operated 181 times on 176 patients for the radical cure of hernia; inguinal hernia, male 155; female 12; femoral hernia male 5; female 10.

* Read before Orleans Parish Medical Society, Nov. 28, 1908.

Cases operated on were as follows:

1896.....	1	1903.....	38
1897.....	1	1904.....	14
1898.....	7	1905.....	12
1899.....	4	1906.....	25
1900.....	9	1907.....	22
1901.....	14	1908.....	13
1902.....	21		
			<hr/>
			181

Age of patients were as follows:

1 to 5.....	2	30 to 40.....	32
5 to 10.....	7	40 to 60.....	54
10 to 20.....	27	60 to 70.....	10
20 to 30.....	31	70 to 80.....	5
Age not recorded.....			8
			<hr/>
			176

The method employed has been in every instance, both in the femoral and inguinal varieties, that of Bassini, with just one modification, which, in view of the remarkable results that are presented in these cases, is distinctly worthy of placing before the profession. In many cases of inguinal hernia, particularly in scrotal hernia of long duration, and more especially, in old incarcerated hernias, the cremaster muscle is often found to be remarkably hypertrophied. Many years ago I noted the difficulty with which the parts concerned in the Bassini operation were apposed where this marked hypertrophy of the cremaster existed. My conception of the operation embraced two absolute essentials, first primary union; second, accurate and close apposition of the parts, the external oblique and Poupart's ligament, without the intervention of extraneous tissue. It has always been my idea that any intervening tissue must, at some portion of the canal, hold the parts asunder and there prevent intimate union and, as a result, favor the ultimate weakness of the canal and recurrence. Bassini merely strips away the lobules of fat that are found in the canal, but this is not enough. Accurate coaptation cannot be had in these cases unless the cremaster muscle be resected, and this has been my modification of the Bassini operation, and a routine habit wherever hypertrophy of the cremaster has been

encountered. The further steps attending the operation as performed by myself have been the use of kangaroo tendon for the deep sutures; suturing and tying from the inner ring down, and placing a sufficient number of sutures to completely close the canal. I have ignored the possibility of strangulating the cord by tying too near the internal ring. It has been sufficiently proved by the results obtained in Bevan's operation for undescended testicle that the artery of the vas and its return blood supply is quite sufficient to insure the integrity of the testicle. For the external oblique cat-gut iodized, or cumol No. 3, and for the skin I have finally settled upon No. 9 twisted silk. I believe the continuous suture more accurately co-apts the edges of the wound, and that the resulting scar is far less discernible than interrupted sutures. The after treatment of the patients consist in rest in bed for twenty-one days. I believe these two factors: 21 days rest in bed, which is somewhat more lengthy than that employed by most surgeons, with resection of the cremaster where it is found hypertrophied, will account for the remarkable results obtained in this series of cases. The average time required for operation was 20 minutes, the minimum 14 minutes. The cases operated were mostly hospital cases, brought in from the street, and were actual hernia with the exception of 11 which were operated upon in boys for undescended testicle. Among these cases were 52 strangulations requiring immediate operation, and in six cases double herniotomy was done. In 4 cases gangrene of the bowel had taken place, and resection required. In one case 6 inches of the small bowel were resected; on one case 16 inches resected; in one case 8 inches, in one case 10 inches, this latter case representing one of the two deaths that occurred in 176 patients. In these four cases of bowel resection I performed circular enterorrhaphy. The following is the history of the fourth and fatal case, that in which 10 inches of gangrenous gut were resected.

HISTORY OF W. B. I: Strangulated oblique inguinal hernia. Strangulation in existence 3 days prior to entrance in hospital. Profoundly depressed, stercoral vomitus, immediate operation. Contents of sac, 9 inches small bowel and a large mass of omentum, both gangrenous. Resection of omentum and 10 inches of small bowel. Circular enterorrhaphy. Death on fifth day. Au-

topsy disclosed gangrene of bowel extending from, and slightly beyond, suture line.

This death, therefore, can hardly be charged to an operation for hernia. It should therefore be eliminated as belonging more properly to the category of bowel resection.

I have been able to find but one recurrence in this series—the following are the notes taken at the time of operation:

HISTORY G. H. R.—August, 1901: Strangulated oblique inguinal hernia following radical operation at the hands of another surgeon one year prior to present strangulation. Bassini radical cure. A severe and persistent cough set in on the day following operation, causing much pain in the wound. Primary union. Patient reported to me February, 1902, six months later. Recurrence of a small hernia. Truss advised.

This recurrence you will observe was in a patient who had previously undergone the operation for radical cure, therefore one in whom recurrence might have been expected. This was manifest within six months after the operation and bears out very well the statistical fact that 65% of the recurrences occur within six months, 80% within 12 months, and 6 2/3% only after two years. A patient may then be classed as cured after a lapse of 12 months. After two years a cure may be considered to be firmly established.

In this series of 182 operations, one hundred and three patients were traced beyond the two year limit, twenty-three of them beyond six years. Only one recurrence was found, the history of this case being cited above. The percentage of recurrences in the cases thus traced from two to ten years being less than 1%, which I believe is less than that shown by any statistics hitherto published. There were two deaths in the 176 patients representing a gross death-rate of 1.14%.

The Author's Radiologic Frame*

By AMÉDÉE GRANGER, M. D., New Orleans.

About two years ago the author felt the need for an apparatus that would be more accurate and practical for fluoroscopic work than the various existing floor-stands, and yet neither so cumber-

* Read before Orleans Parish Medical Society, Nov. 28, 1908.

some nor expensive, as the orthodiagraph and the massive four post frame of Guillemot. To fill that want for his personal X-ray laboratory, he devised a fluoroscopic frame, which he has used since 1907. This apparatus consists briefly of two essential parts: One large frame, which rolls between tracks, one of which is on the floor and the other on the ceiling. This large frame has an upper forward extension for the support of a fluorescent screen and also for the support and guidance, together with the lower forward extension, of a continuous rope and counterweight arrangement. It can be readily seen that as both these extensions cross the operating table, the screen would be on the operator's side of the table and facing him, and the continuous rope at his right side. This continuous rope arrangement is for the control of the vertical movement of the second essential part, the smaller frame within the larger one. This smaller frame holds the diaphragm and the X-ray tube clamps. A lateral motion is imparted to the X-ray tube by moving the main frame along its tracks and a vertical motion by moving the small frame. This latter movement is accomplished while the tube is in action, without having to reach over the operating table or to the side or behind the patient.

This frame has proved very valuable, and several confreres who have seen it in operation, have spoken highly of its usefulness and simplicity. When making fluoroscopic examinations, the frame can be readily moved along its track and thereby placed in any position alongside of the operating table, imparting a lateral movement to the X-ray tube which it carries. The latter can also be moved vertically by simply pulling on the continuous rope situated at the operator's right hand, without having to reach to the side or behind the patient. At the same time, the screen, guided by the left hand, can be made to follow the movements of the X-ray tube, and can be placed and held against the part which is being examined. A diaphragm controls the amount of X-ray illumination and the lead glass facing of the screen protects the operator's eyes and face.

When the frame is not in use, and the table is needed for skiagraphic or other work, it is made to roll along its tracks to one end of the table, where it is out of the way and occupies practically no room in the laboratory.

There being only one lower extension, the range of motion of the main frame corresponds to the distance between the legs of the table. The frame can be used with any kind of table and for that matter, the patient could be made to stand or sit on an ordinary stool.

Greater familiarity with this apparatus and a greater appreciation of its simplicity and practicability, have made the author realize the advantages that could be gained by adapting it to do radiographic and radio-therapeutic work, as well as fluoroscopy; that is, combining into one the several apparatuses used in radiology, thus doing away with the expensive and cumbersome compression diaphragm table. For instance, one make of X-ray table with compression diaphragm, which the author has used in both his hospital and private laboratories for over three years, presents the following objections:

It can with difficulty be handled alone; it is not very well adapted to radiotherapy, and it cannot take a skiagraph larger than ten inches in diameter. There is no means for focussing and centering the X-ray tube, no protection to the patient or operator from the X-rays, and when deep compression is made, the respiratory movements of the patient are sufficient to cause the compression cylinder to slide away from its first position.

The desiderata then for a useful and practical radiologic frame, are the following:

- 1st. It should be adapted to fluoroscopic work.
- 2nd. It should be adapted to all kinds of skiagraphic works.
- 3rd. It should be adapted to radiotherapy.
- 4th. It should be provided with means for finding the normal ray and for centering that ray.
- 5th. The patient and the operator should be afforded protection from unnecessary exposure to the X-ray.
- 6th. It should have means to make all parts rigid, so that no ordinary movement of the patient can disturb the tube when once in position.
- 7th. Its construction and more especially its controlling devices, should be few and simple.
- 8th. It should be adaptable to any sized office and any make of operating table.

Accordingly, I set to work to alter and improve my original radioscopic frame, and with the valued assistance of Mr. E. Bel-den, E. E., I have succeeded in designing my present radiologic frame, which fulfills all the requirements mentioned above.

DESCRIPTION: Main roller frame (F), with adjustable extension (E) rolls on tracks, one of which (T) is on the floor and the other (T') is either fastened to the ceiling or held at any desired height above the floor by means of two standards screwed to the floor. The adjustable extension (E) renders the frame adaptable to any height between ten and twelve feet for a height above twelve feet, a larger adjustable extension (E) could be easily made.

This main frame (A) rolls along the side of the operating table from end to end, imparting a lateral motion to the lead-lined box. This movement is controlled by means of standard (G''') at operator's right hand, on the operator's side of the table. The main frame is arrested in any position alongside of the table by means of lever (6).

Forward from the main frame (F) are two extensions (E' and E''). From upper extension (E'), the fluorescent screen (S) is freely suspended by means of ropes, pulleys and counter-weights, so that it can be easily placed and guided in any desired position by the operator's left hand. This screen (S) has a sheet of lead glass on the side facing the operator, thus affording him protection from the effects of the X-rays.

When the radiologic frame is in a room which cannot be made dark, the screen (S) shown in plates (1 and 2) can be replaced by a fluoroscope properly balanced and also protected by lead glass or what would be still better, a light wooden frame could be attached to the frame of screen (S), so as to form a cube, one side of which is constituted by said screen (S) and the other sides by a black cloth. Inside of this the operator could insert his head, thus forming a dark chamber for it.

Lower extension (E'') for the support and attachment of horizontal shaft, gear case, standard and crank (G'', G''' and 1).

Small roller frame (R) rolls up and down within main frame (F), imparting a vertical movement to the lead-lined box. The movement of this frame (R) is controlled by turning crank (1), which works worm gear arrangement (G, G', G'' and G'''). To this frame (R) is hinged dropped frame (D).

Frame (D), when let down by means of quadrants and thumb nut (3), lies over the operating table and at right angles to frame (R). Lead-lined box slides along frame (D) over the table from side to side of the latter, and can be made fast in any position by means of thumb nut (4), and can also be tilted to an

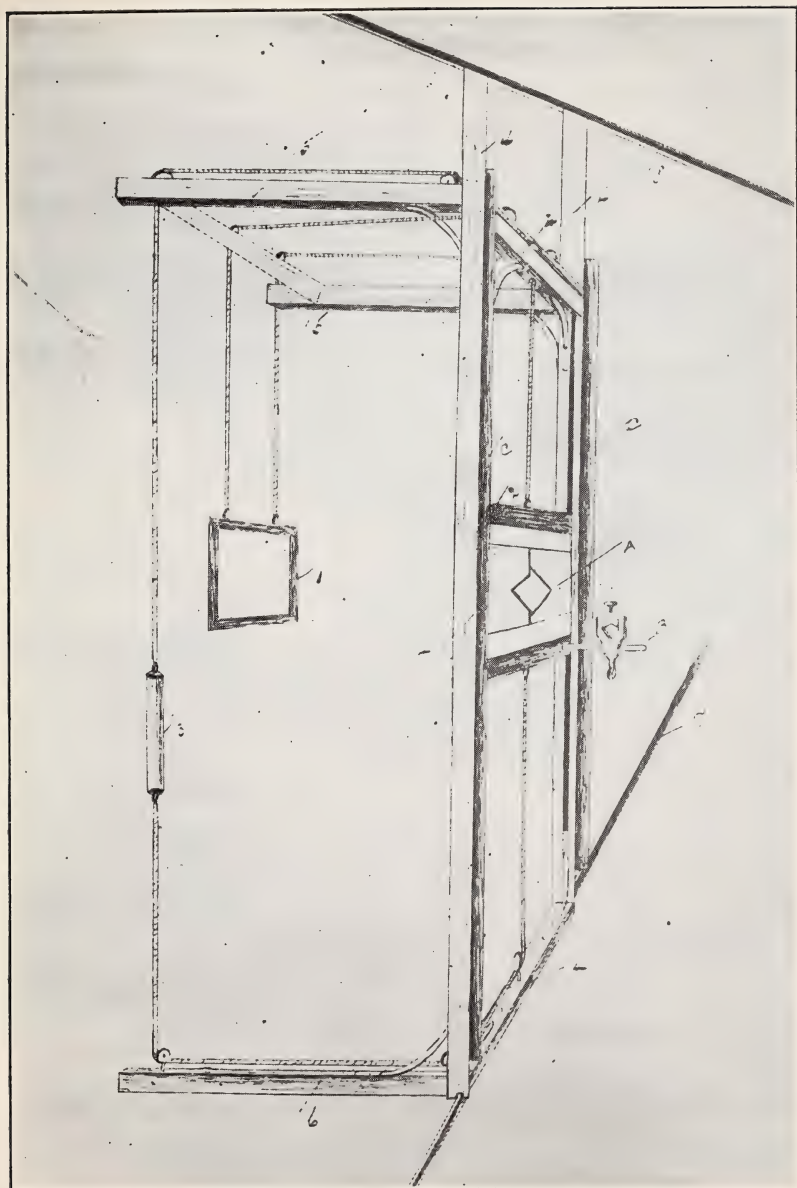


PLATE I.

DR. GRANGER'S RADIOSCOPIC FRAME.

1. Fluorescent screen; 2, Small sliding frame, containing tube holder (B) and lead diaphragm (A); 3, Part of continuous chain arrangement and counterweight for (2) small sliding frame; 4, Main sliding frame moving on track (7 and 8); 5, Overhead extension supporting pulleys for continuous chain arrangement (3), and also for ropes for screen (1); 6, Floor Extension; 7, Track on floor; 8, track on ceiling; C, Boxes in which counter-weights for screen (1) slide.

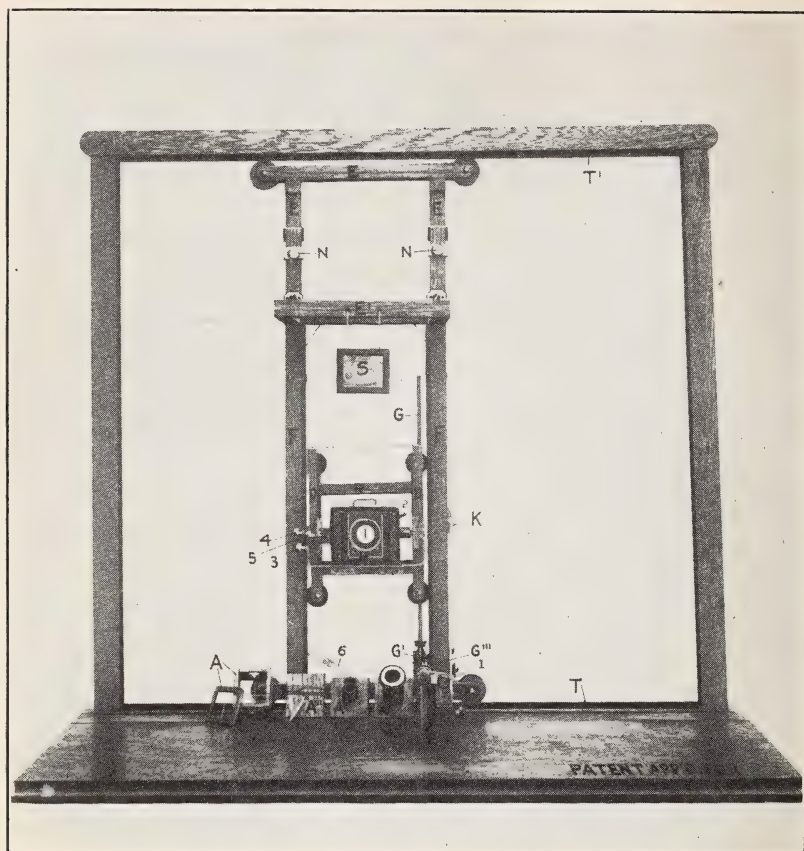


PLATE II.

DR. GRANGER'S RADIOLOGIC FRAME.

F, Main rolling frame; E, Adjustable extension; E' Upper extension; E'' Lower extension; R, Small roller frame; D, Drop frame; I, Iris diaphragm; H, Channel rack; N, Strap and nut for adjustable extension frame E.; G, G' G'', G''', Long worm gear and shaft arrangement controlled by means of crank (1) for moving small roller frame (R); S, Fluorescent screen, lined with lead glass; K, Counterweight for fluorescent screen (S); T, Track on the floor; T', Track on ceiling, or held by uprights. Attachments: A, For finding normal ray; A', Compression cylinder diaphragm; A'', Lead glass shield-holder; A''', For centering the X-ray tube. Controlling devices: 1, Crank for gear and shaft arrangement (G, G', G'', G'''); 2, Lever for iris diaphragm; 3, Thumb nut to fix drop frame (D); 4, Thumb nut to fix lead-lined box on drop frame (D); 5, Quadrant and thumb nut controlling the tilting movement of the lead-lined box; 6, Lever controlling eccentric which arrests main frame (F) in any desired position alongside the operating table.

angle of forty-five degrees, backwards and forwards, by means of quadrant and thumb nut (5).

This box is lined with lead and holds not only the X-ray tube, but also the attachments (A, A', A'' and A''') for various uses. It follows therefore that once a tube is properly centered, with reference to any of the above attachments, any movement of the box imparts a movement simultaneously to the X-ray tube and to these various attachments, thus maintaining their relations intact. This course is of great import in the various applications of the X-ray. Besides this point the fact that the attachments are interchangeable and all fit in channel rack (H), makes it very practical and simple, thus affording a rapid means of adapting the radiologic frame to its various uses, with minimum of time and labor.

When frame (D) is in the vertical position (that is, raised), the front of the box presents a circular opening closed by an X-ray proof iris diaphragm (I), the movement of which is controlled by lever (2), which is seen on the right side of the box. Channel rack (H) is also plainly seen on the front of the box. When frame (D) is let down to a horizontal position the front of the box now becomes its bottom. In this position is seen lead glass window (W) through which the tube, while in action, can be observed while in action.

The top (C) is removable and it is through that full opening that the X-ray tube is placed into the box and clamped to the tube carriage. This tube carriage moves on a track inside of the box from side to side of the latter. The track itself moves up and down. Both of these movements are controlled from the outside of the box by means of thumb-screws placed on its right side. On the sides of the box we find circular openings (X), through which the ends of the X-ray tube protrudes.

ATTACHMENTS:—Attachment (A), for finding central ray. This attachment fits into channel rack (H) and consists of an arrangement by which two wire crosses fitted into wooden frames are held about four inches apart and with their centres exactly opposite each other. When in position in channel rack (H) the intersection of both wire crosses lie opposite the centre of the opening in iris diaphragm (I). The frame holding wire cross farthest from diaphragmatic opening can at will be removed from the rest of the attachment.

Attachment (A'), compression cylinder, consists of a lead-lined base, with a lead-lined wooden cylinder eleven inches long and six inches in diameter, with cuff at free end. The base fits in channel rack (H). This attachment is made use of in skiagraphic work. By its means the secondary rays are eliminated and when necessary very firm compression can be made.

Attachment (A''), shield holder for the X-ray treatment of

diseased surfaces of varying sizes, consists of a lead-lined plate, with a circular opening in the centre, two inches in diameter, on one side of which is fitted a small metallic band with set screw. Into this band fit lead glass shields two inches in length and a half inch to two inches in diameter at the free end. The base of attachment (A'') fits into channel rack (H).

Attachment (A'''), for centering the X-ray tube over a given point of the patient or of the photographic plate, consists of a lead-lined board having a small hole in the centre, through which passes a cord, at one end of which is a plumb weight, in such a manner that when placed in position in channel rack (H) and the work let down by means of the cord on any given point, it would be indicative of the fact that that point lies directly under the centre of the opening and the iris diaphragm (1) and therefore in the path of the central X-ray.

USES—FINDING THE NORMAL RAY: The importance of a convenient, quick and practical attachment, by which this ray can be found, becomes at once apparent when we remember that the X-ray light is given off from the target of the X-ray tube in the form of a cone of light and that the more diverging the rays the more distorted the shadow produced by them. It becomes essential, therefore, in all X-ray work, to make sure that this central ray is accurately focused. In the Granger Radiologic Frame, this ray is found by means of attachment (A) and in the following manner:

Attachment (A) is first placed in channel rack (H). The X-ray tube, which was already clamped to the carriage in the lead-lined box is connected to the X-ray coil and the latter put in operation. Fluorescent screen (S) is now guided with the left hand and placed opposite diaphragm opening of box and if the X-ray tube is properly focused, the two wire crosses of attachment (A) will only throw one shadow on the screen (S). If two shadows are seen on the screen, the X-ray tube, while in action, can be moved horizontally or vertically, as the case may be, by means of the thumb-screw on the outside and to the right of the box, until only one shadow is seen on the screen. If now the frame holding one of these crosses be removed, the remaining cross can be used as an indication of the position of the central ray on the fluorescent screen.

FLUOROSCOPY: In fluoroscopic work, drop frame (D) is in upright position, as shown in plate (1). The X-ray tube has already been focussed by means of attachment (A), the fluorescent screen (S) can be guided and placed in any desired position by the operator's left hand and the X-ray tube itself can be moved vertically or horizontally alongside of the operating table from end to end, by means of crank (1), which is situated at the operator's right hand. When the lateral movement is imparted to the tube,

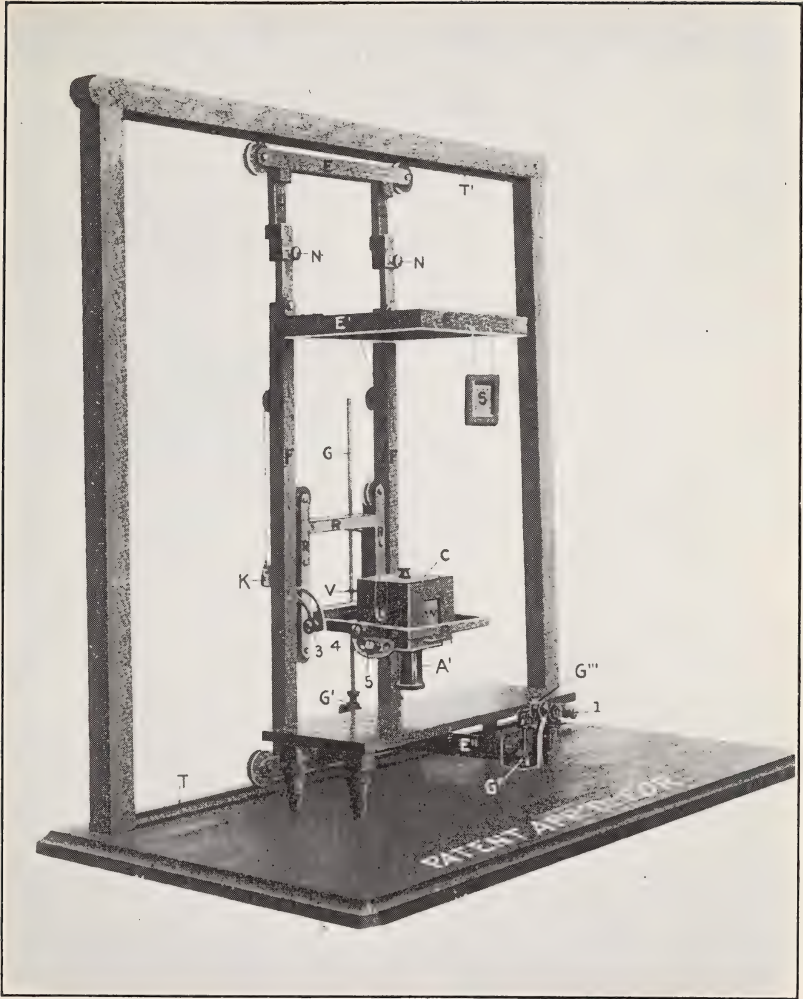


PLATE III.

DR. GRANGER'S RADIOLOGIC FRAME.

F, Main rolling frame; E, Adjustable extension; E', Upper extension; E'', Lower extension; R, Small roller frame; D, Drop frame; C, Removable back; W, Lead-lined window; X, Opening on sides of box; N, Strap and nut for adjustable extension frame (E); V, Attachment of roller frame (R) to long worm gear (G); G, G', G'', G''', Long worm gear and shaft arrangement controlled by means of crank (1) for moving small roller frame (R); S, Fluorescent screen lined with lead glass; K, Counter-weight for fluorescent screen (S); T, Track on floor; T', Track on ceiling, or held by uprights; A', Compression cylinder diaphragm. Controlling devices: 1, Crank for gear and shaft arrangement (G, G', G'', G'''); 3, Quadrant and thumb nut for movement of drop frame (D); 4, Thumb nut to fix lead-lined box on drop frame (D); 5, Quadrant and thumb nut controlling the tilting movement of the lead-lined box.

it also carries with it the fluorescent screen. The latter is lined with lead glass on the operator's side, thus affording his face and eyes protection from the effects of the X-rays. The amount of illumination of the screen is controlled by lever (2), which can be easily reached by the operator's right hand and which makes larger or smaller the opening in iris diaphragm (I). All of these movements can be easily controlled while the tube is functioning, without danger of shock and by the handling of only two controlling devices, crank (1) and lever (2).

When locating foreign bodies, attachment (A) is placed in channel rack (H), one cross is removed and the other used as an indicator of the central ray. The X-ray tube is moved until the intersection of this cross corresponds to the centre of the foreign body. The skin is marked over that point with a dermagraphic pencil. A line drawn through the part at that point, which was the point traversed by the central ray, would strike the centre of the foreign body. The same principle can be made use of in outlining on the skin the exact shadow of the heart, diaphragm or liver; *i. e.*, by moving the X-ray tube until the intersection of the wire cross follows the shadow of these organs and making skin tracings at these points. Our apparatus, therefore, serves the purpose of the more bulky and expensive orthodiagraph.

SKIAGRAPHY: For skiagraphic work, drop frame (D) is held in the right hand and let down to its dropped position (Plate 2) and fixed in that position by means of quadrants and thumb nuts (3). Attachment (A') is placed in channel rack (H) and the X-ray tube can be focused over any desired portion of the operating table by moving box containing tube from side to side of table on frame (D) and from end to end of table by moving main frame (F) by means of standard shaft and crank (1) at operator's right hand. A distance from the plate to the target of the X-ray tube would be the distance from the plate to the centre of lead glass window (W). The lead-lined box can be arrested in any position along frame (D) by means of thumb nut (4). The X-ray tube is raised or lowered by turning crank (1). And when compression is necessary, this can be made slowly and firmly by turning same crank (1). If it is desired to to make a skiagraph or large plate, say 11x14, or 14x17, attachment (A') is removed and diaphragm opening opened to its full capacity. The movements of the tube are controlled, as above, and the centering is done by means of attachment (A''). In stereoscopic skiagraphy, the box containing tube can be moved from side to side over the table and also tilted to an angle of 45 degrees, forwards or backwards by means of quadrants and thumb nut (5).

It can be seen from the above that the apparatus can be fixed firmly in any desired position. The only movement possible, that from end to end of the table is prevented when deep compression

is made by means of lever (6), which forces a ragged stop against the floor and fixes the main frame.

When drop frame (D) is let down and fixed all the positions necessary in ordinary work are easily and practically obtained by means of only two controlling devices, viz.: crank (1), thumb nut (4).

RADIOTHERAPY.—In all X-ray treatments the position of drop frame (D) is the same as for skiagraphic work. The movements of the tube containing box are also controlled in the same manner. If the surface to be treated is larger than two inches in diameter, no attachment is used, but the amount of X-ray radiation is controlled by means of iris diaphragm (I), through lever (2). If the surface to be treated is less than two inches in diameter, then attachment (A''), fitted with suitable sized glass shields, is made use of.

CONCLUSIONS—*First*—The Granger Radiologic Frame is suitable not only to ordinary X-ray usages, but also to the more exact and expert work with the X-rays.

Second—Its control is practical, convenient and very simple; the controlling devices, only six in number, are placed where most convenient. In fluoroscopic work only two are made use of, and in the ordinary skiagraphy or radiotherapeutic work, not more than three.

Third—The frame is adaptable to any size office and for use with any make of operating table. It takes up practically no room and when not in use can be rolled out of the way to one end of the operating table.

Fourth—The patient and the operator are protected at all times from unnecessary exposure to the X-rays.

Louisiana State Medical Society Proceedings.

EDITED BY PUBLICATION COMMITTEE.

DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DR. H. B. GESSNER, of New Orleans, read a paper entitled
Report of a Case of Jacksonian Epilepsy; Operation; Removal of Bone Spiculum from Fissure of Rolando.

When the title of this paper was sent to the Chairman of the Section on Surgery it was my hope that the patient referred to would prove a successful case of trephining for traumatic epilepsy. This hope has not been realized. However, I have prepared a brief

review of the case, believing that certain features connected with it would prove interesting and suggestive and that its recital might bear good fruit in the future.

Arthur Jackson, colored, male, aged 18 years, came under the care of Drs. P. E. Archinard and L. L. Cazenavette on November 23, 1907. To the latter I am indebted for a very full history of the case, the complete details of which may be found in the March, 1908, issue of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, p. 710-713. Briefly put, the case was one of injury to the left side of the forehead at the age of six years, a horse kick the immediate cause. He walked home without loss of consciousness, so far as known, but bleeding profusely; was taken to the Charity Hospital where fragments of bone were removed through the break in the soft parts and a dressing was applied. Two months later he left the hospital, able to walk and use both hands, but almost completely unable to speak. A year later he began to regain the power of speech, which even now is slow, hesitating and of limited range. School attendance was not possible, because of the epilepsy; he has learned the alphabet and numerals at home; is of very limited intelligence.

Two years after the injury epileptic seizures appeared in the form of sudden involuntary movements in the right hand. Gradually the attacks grew more severe, unconsciousness complicating them, the entire right side becoming involved, and the duration increasing. Later the whole body participated in the convulsive movement. There have been as many as 8 or 9 attacks a day, apparently uninfluenced by bromide treatment.

As the symptoms pointed to a focal lesion of the surface of the cerebrum, it was decided to give him the benefit of operation in spite of 12 years' duration of the condition. A flap was turned down and a button of bone removed. The adherent dura was then separated, and the vault rongeuired away toward the fissure of Rolando, the purpose being to give a decompressive effect to the operation.

Over the middle of the fissure of Rolando and extending forward over the center of speech in the third frontal convolution could be felt a long hard body which, on incision of the dura, was found to be a thin spiculum of bone $1\frac{1}{2}$ inch by $\frac{1}{2}$ inch in dimensions. This had evidently been knocked off the inner table of

the skull and driven backward through and under the dura to lie well behind the site of direct injury. The dura was brought together, the flap sutured and the wound dressed. Primary union followed.

For a time the patient improved, as such cases usually do after operation. In this particular instance suggestion was evidently at work, for he had sought operative interference and was convinced it would do good. Later reports indicate that he is little if at all better than before operation. Such is the history of many similar cases. Notwithstanding this fact I would not be understood to decry operative interference, for these cases are desperate, the patients are but little better off than if they were dead, and earlier operations should give better results. What I specially wish to bring out in this connection is the importance of exploratory operations in cases of cranial injury. Quite frequently after cephalic trauma rest and sedatives are given when a subdural exploration after turning down a flap of soft parts might enable the surgeon to recognize and remedy a condition pregnant with evil possibilities.

Removal of the Gasserian ganglion is to be reserved for the specialist in neurologic surgery. But the practitioner who is fit to do any surgery should be able to treat more thoroughly than has been the custom in the past these cases of traumatism. The technique is comparatively easy, the great point of importance after asepsis being gentle manipulation, careful avoidance of any rough handling of the brain which would promptly result in severe, possibly fatal, shock.

DISCUSSION.

DR. HUMMEL: I saw the case reported by Dr. Gessner, and it presents some interesting features. I think the boy is reduced to permanent imbecility. It seems to be the experience of those who have operated a great deal on this class of cases that when a case has existed as long as that one has, there is very little hope of relieving the convulsive seizures by surgery. However, some degree of relief is often had after removing foci of irritation, especially about the motor area, and doubtless the condition will continue to attract the interest of surgeons.

DR. PARHAM: I think it important in such cases after the dura has been opened to test the exposed convolutions by an electrode to

determine the real seat of disease, by noting the point, stimulation of which will reproduce the convulsive movements. Of course, any depressed bone must be removed or elevated, but in many cases the dura should be opened and the convulsions examined as stated. Occasionally, in this way secondary areas of involvement will be discovered. Because paralysis sometimes follows is not sufficient reason to deter us from relieving the convulsive disorder which is our first duty.

DR. VAN WART: Dr. Gessner brings out a very important point which was first called attention to by Sachs; that is—concerning the use of bromides. Sachs observed that in traumatic cases as well as in those due to cortical hemorrhage at birth, the patients did not improve under the bromide treatment, and that the attacks actually diminished when the use of bromides was stopped. This has been my personal observation in a number of cases. The question of operation in traumatic cases is one of great importance; but, it must be remembered that, as we know little concerning the pathology of epilepsy, not much can be expected from this measure.

DR. E. DENEGRE MARTIN: I want to call attention to the importance of exploring the injuries at the time of their occurrence. I believe that conditions and symptoms overlooked at the time of injury are often the cause of Jacksonian epilepsy. I had a case where the injury was of four years standing and the patient was at the time practically an idiot. The condition was very peculiar and the symptoms have been entirely removed by an operation. There was no distinct history except that four years before the child had been struck on the head by a plowshare. The child has now recovered his intelligence, and, while not so far advanced as one of twelve, learns readily. I had another case of sixteen years standing who was relieved for a year, at which time the scar tissue contracting and pressing on the dura caused the symptoms to return. A second operation was done, and he has since had but one convulsion, and is getting along nicely. He is now well, able to take care of his farm. He attends to his affairs and is an intelligent man.

DR. ALLEN: There is no part of the body in which the external wounds may be so misleading as those about the cranium, the most serious intracranial conditions can exist in presence of very slight

or no apparent external injury. I believe all cases where the least doubt exists should be carefully explored. To cite a case, a man was assigned to my ward in the hospital who had been hurt on a railroad, there was an infected scalp wound of the parietal region, but no cranial injury that could be demonstrated. He was unconscious and remained so for about ten days, at times violent and had to be restrained. Dr. Van Wart saw him and did not advise immediate interference on account of his serious condition.

About two weeks afterwards I made an exploration and found that a part of the skull about one inch in diameter had been comminuted and driven into the brain from one inch to one inch and one-half in depth. These were all removed and the wound closed with drainage. Recovery was uneventful. The man is now well and is one of the help about the hospital. This is only one illustration, but serves its purpose.

It was impossible to detect this injury before operation on account of the edema of the scalp and had the external wound been allowed to close the case may have been added to our list of epileptics. When dealing with cranial injuries always explore and explore fully, when in doubt.

DR. W. M. PERKINS: As illustrative of what Dr. Allen says a man came into the hospital last winter. He had been struck in the head when about eight years of age. From the eighteenth to the twenty-seventh year he had epileptic convulsions. When 27 years of age, he applied for surgical treatment. We operated and discovered two cysts, one was about the size of a man's thumb, and the other the size of a little finger. After proper treatment they were drained. He at first improved and then the usual turn of the epileptic attacks occurred. He was then treated by non-surgical methods and is semi-sensible.

DR. GESSNER (in closing): I wish to thank the gentlemen for their discussion, which was interesting and instructive to me. I wish to again lay special emphasis upon the importance of trying to prevent this epileptic condition by exploring these injuries to the head. About the technic, I would say that there are men who will plunge into the abdomen, but who will put these patients to bed and give bromides instead of operating. The average man is better equipped to trephine the skull than to go into the abdomen.

DR. C. J. GREMILLION, of Alexandria, read a paper entitled:

**Intussusception, Its Diagnosis and Treatment with a
Report of Two Cases.**

Intussusception is the invagination of one portion of the bowel into the other and it assumes different names as it occurs in different portions of the intestinal canal.

1st. Ileal, in which the small intestine is invaginated into itself.

2nd. Ileo-colic, in which the ileum passes into the ileo-cecal valve.

3rd. Ileo-cecal, in which the ileum and the ileo-cecal valve passes into the cecum and colon.

4th. Colic, in which the large intestine is prolapsed into itself.

The clinical picture presented by intussusception varies in the most remarkable manner, according to the permeability of the intestinal canal and the circulatory disturbances in the mesentery and intestinal wall. The time at my disposal is too short for me to consider the many interesting phases of this subject. I intend to bring to your attention a few of the most important points in the diagnosis and treatment.

Intussusception is especially frequent in children and whenever we meet with cases of abdominal pain of sudden onset in a child we should always suspect invagination. As a rule the pain will make its appearance without any appreciable cause. The child seems in good health even asleep when it is taken with an agonizing, paroxysmal pain in the abdomen. Children are not always able to locate the point whence the pain starts, but adults will often say that it is confined to a certain locality. The pain is paroxysmal in character and surpasses any abdominal pain that children are subject to. Tenesmus increased by violent peristalsis is more severe the nearer the invagination is to the rectum.

Vomiting is by no means a constant symptom, it occurs more frequently in the acute than in the chronic cases. The higher up invagination takes place the sooner the vomiting will manifest itself. In some cases it is constant and very distressing, in others it occurs very irregularly. During the last stages of the disease you will very frequently see fecal vomiting. It may be accepted

as a general rule that the vomiting is obstinate and persistent according to the occlusion of the lumen of the bowel. In all cases of intussusception we have practically an occlusion of the bowel. Douglas says: "Paradoxical as it may appear, free bowel action is the rule in this form of intestinal obstruction, thus emphasizing the important and often overlooked clinical fact that mere interruption of the passage of feces is but a small part in the pathological manifestation of intestinal strangulation. The violent peristaltic action excited by the invagination precipitates rapid and frequent evacuation of the bowels and diarrhea is one of the early symptoms.

With the evacuation of the contents of the bowels the character of the discharges changes. Hemorrhage occurs from the engorged surface of the intussusceptum and bloody mucus, dysenteric stools may be regarded as a constant symptom of invagination of any portion of the intestinal canal. In 80% of the cases blood and mucus appear in the stools."

The presence of a tumor, with the preceding symptoms is almost diagnostic of intussusception. However, it is only in 50% of the acute cases that we are able to detect the tumor, and in a larger per cent in the chronic cases. It varies very much in size and locality. Invagination in the small intestines causes a smaller tumor than invagination in the large intestines. The form of the swelling produced by intussusception is sausage shaped and somewhat curved. One of the characteristics of these tumors is that they are very changeable in size and consistency. This is due to tetanic contraction of the intestinal wall. In the ileo-cecal and colic form of intussusception we sometimes find the tumor prolapsing through the anus. This may occur in the acute and chronic form.

At the inception of the trouble the abdomen is generally diseased, but if diarrhea becomes established the tympanites subsides. As we have mentioned before, a certain per cent of cases run a chronic course. A chronic case is brought about by the invaginated cylinder being attached to the enveloping sheath and the permeability of the intestinal tube is established after the primary swelling has disappeared. If this occurs the pains return at longer intervals and the bloody discharges disappear. However the patient becomes emaciated, attacks of indigestion are fre-

quent and through the thin abdominal walls the peristaltic action of the hypertrophied intestine may be seen.

HISTORY OF CHRONIC CASE.

CASE I—This case was first seen by me February 21, 1908. N. S., aged 3 years, female. Family history, negative. Previous history, nothing of note. Present condition, dates back since December 10, of last year, while standing near a cow, the animal moved its head striking her in the left side, knocking her to the ground.

The next day she was taken with pain in the same side, was nauseated and vomited green fluid and mucus. About 7 p. m. that same day she passed a large amount of blood from the bowels. After five hours the attending physicians succeeded in stopping the hemorrhage. Subsequent to that she gradually improved, but they noticed when she took violent exercise, she would complain of some uneasiness and pain in the left side, and would support it with her hands. On January 12, 1908, she was suddenly taken ill with pain in the left side and vomiting. They gave her calomel and soda with good result. A few days following this, a small mass appeared in her left side which was quite perceptible, a little tender and could be moved. On January 14, Dr. Glass was called to see her, he gave her some tablets, and applied a bandage around her abdomen. About 38 hours after the tablets were given some were passed undissolved. Another physician was called, giving her enemata of castor oil and water every day to move her bowels, she did comparatively well.

On February 18 she had another attack of vomiting, pain, tenesmus, and passed mucus and blood for three days. I then saw her; she was extremely emaciated and anemic, expression drawn, no temperature, pulse 160. The coils of intestine were plainly visible through the abdominal wall, in the left lumbar and iliac region could be seen and palpated a large mass about 8 inches long which was a little hard, painful on pressure and slightly movable. We recognized the condition and advised an operation; not being able to communicate with its mother, it was refused until the next day at 11 o'clock.

Under general anesthetic, the abdomen was opened in the medium line, a large discolored mass extending from the left costal margin down to the sigmoid was found. All means of reduction was tried, but the adhesions were so firm that all attempts were in vain.

In making our diagnosis we should bear the following points in mind. Sudden onset, no temperature, paroxysmal pain, bloody stool, marked restlessness, the appearance of an abdominal

tumor. The most frequent condition with which we may confound intussusception is appendicitis. This case illustrates how easy it is to make this mistake:

CASE II.—B. W., a girl of 6 years, was brought to me by her parents, September 2, 1908, with the following history: Had measles and whooping cough, otherwise was always healthy. The day before she was taken sick, mother claims she ate some wild grapes.

About twelve hours before seeing her, at night, she was suddenly taken with intense pain in the abdomen, which occurred in paroxysms and lasted about three hours. During that time, she vomited a great deal and there was some tenesmus. Their physician was called, giving her an opiate and five doses of calomel, after a short time the pain returned, and he advised taking her here. Examination showed patient well nourished and developed, Temp. 99, pulse, 108. Tongue slightly coated. The abdominal walls were rigid, especially on the right side. A little to the right of the umbilicus, a small indistinct mass could be palpated which was very tender on pressure. The diagnosis of appendicitis was made and the following treatment started: Patient was put to bed, an ice bag was applied to the right side, nothing was allowed by mouth. Codein in small doses was given to relieve the acute pain. During that night she vomited, and was very restless. Several times her bowels felt like moving but she only passed a small amount of blood.

The following day, about 36 hours after the onset, there being no improvement in her condition, an operation was advised. After she was under the anesthetic, the field was thoroughly cleansed and a gridiron incision was made at McBurney's point. On opening the abdomen a small quantity of serum exuded from the cavity, and to our surprise a small invagination was found in the ileum. This was readily reduced, and slight congestion being apparent in the appendix it was removed.

The patient did well, until the morning of the third day, when her temperature arose to above 103, and she presented all symptoms of a toxic infection. A purgative was given, for about three days she passed a large quantity of grape seeds, from that day on she gradually improved and was permitted to go home twelve days after the operation.

In discussing the treatment of intussusception it may not be out of order to mention what not to do. First avoid purgation. It is very unfortunate that the laity should be so greatly disposed to purge all children who show any symptoms of intestinal trouble, and I am sorry to say that a great many of the medical men have

got into the habit of prescribing a carthartic even before they have made a tentative diagnosis. We should avoid feeding our patients by the mouth. Last but not least not fill these little ones with opium to obscure the symptoms the only means by which we can make a diagnosis. After we are reasonably certain of the condition from which our patient suffers I believe that it will diminish the shock and improve the general condition by giving him an opiate.

To relieve the distressing symptom of vomiting I believe one of the best therapeutic measures is washing out the stomach. The accumulation of intestinal contents above the seat of obstruction is very distressing to the patient on account of the distension and the violent peristalsis which it excites. However, we must always bear in mind that this is a palliative measure, and never trust to it as a curative procedure; because we may be thereby losing valuable time for the patient, and therefore jeopardizing his only chance of recovery.

Rectal insuflation of hydrogen gas and air into the rectum to effect reduction was warmly advocated by Nicholas Senn, on account of its non-toxic qualities and the ease with which it could pass the ileo-cecal valve. In the hands of the general practitioner it is not a practical procedure; because few of us have the necessary apparatus to put the method into practice. Besides it is now demonstrated, as the experiments of Mortimer have shown, that the intestines have to be distended to a dangerous degree before gas can be made to pass through the ileo-cecal valve.

In the reduction of ileo-cecal and colic intussusception the distention of the colon with warm saline solution is a method which will succeed in a small percentage of cases, if undertaken during the first 48 hours of the disease. It is best to administer an anesthetic to the patient and fill the large intestines with warm water under a pressure of not more than three feet in a child two years old. It has been proven that long-continued distension under low pressure is better than rapid dilatation under high pressure. D'Arcy Pours recommends that one be held flat over the abdomen for he says: "A sudden and uniform enlargement of the whole abdomen during the operation almost certainly indicates a rupture of the bowels."

The treatment which the majority of cases of intussusception demand is surgical, and it is the duty of the attending physician

to consider it a surgical case from its inception and either prepare himself to operate or else get a surgeon to operate if reduction is not accomplished after the second trial.

The mortality following abdominal section for invagination has been very high and this has been due especially to our hesitancy in opening the abdominal cavity in cases of intestinal obstruction and because we have resorted to operative methods only after other methods have failed and we feel that the case was hopeless unless we operate. We must ever bear in mind the sooner we operate the less are we subject to final adhesion, gangrene and other complications, which makes the operation serious and difficult.

DISCUSSION.

DR. ALLEN: I wish to call attention to a very practical and essential point. These little patients are already bodily shocked and will not stand much more. The mortality is always high, and to lessen this we must get in quickly, do the minimum that is necessary and get out quickly. We must limit the operation to a few minutes. I do not think that in badly shocked or very young patients that we should attempt an anastomosis at the time; bring the affected loop outside of the abdominal cavity suturing it in the wound so that no leakage can occur and then open it letting it drain outside, this can be done in fifteen minutes by any average operator with very little shock. One great desideratum accomplished is that the stagnating contents of the upper section which are poisoning the system are at once relieved and drained out. The bowel has, of course to be anastomosed later, at a favorable time.

One of the best methods is that of Mickulicz, having in view this method of subsequent closure it is necessary at the primary operation to bring the two intra-abdominal portions of bowel up in close contact, the points of contact to be away from their mesenteric attachment and fixing them in this position with a few sutures.

When the time for closure has arrived, a large clamp is used, one blade being passed down each section of bowel, the clamp is then locked, the pressure gradually destroying the opposed walls producing practically a lateral communication; this done, the peripheral portions are brought in contact and sutured thus closing

in the bowel lumen and restoring its continuity. The abdominal wall is then closed over the bowel. The advantage of this method is that the abdominal cavity is not reopened.

DR. F. V. GREMILLION: I want to say a few words regarding the diagnosis of intussusception. In this form of trouble great weight is placed on the existence of an elongated swelling in the abdomen. Let me add that we should not attach too much importance to this one sign. In several cases that I have recently seen, this swelling that they so commonly speak of was present in but one. In other cases this swelling was not present, but instead an indistinct mass was palpable. Tenesmus, with colicky pains, and the presence of mucus and blood in the discharge from the rectum, are important signs that should be considered and looked for. We must always remember, that no matter how careful we are, a positive diagnosis is not without difficulty.

DR. CARROLL W. ALLEN, of New Orleans, read a paper entitled
Delayed Union, Non Union and Vicious Union in Fractures of the Leg with Special Reference to the Volkman Step Operation, a Contribution from the Surgical Clinic of Tulane University.

In selecting the above subject for a paper, I have been prompted by the frequency with which non-union and vicious union are encountered in the lower limb and the excellent results that can be obtained in all such cases by properly selected methods of treatment.

Operation may become necessary in fracture of any bone and the principles here followed, mechanical as well as operative, may be equally applicable to any of the long bones, but to enable me to finish this paper in the allotted time I shall confine myself to a discussion of these conditions in the leg.

I will first report several operative cases and then take the subject up in detail.

REPORT OF CASES.

Carlo Pizena, white, male, *Aet'* 28, admitted December 26, 1906. While working at Lake Charles on November 6, 1906, a piece of

timber fell across his leg breaking both bones at junction at middle and lower third. He was treated by a local physician, the limb being put a plaster cast.

On his admittance, cast was removed. No union had occurred and the bones were found in the condition shown by the skiagraph. Operation December 28, under general anesthesia. In addition to the displacement shown there was a large pad of soft parts intervening, this was freed, and the bones bent at right angles, protruded from wound and a step operation performed, with no apparent shortening of limb.

The subsequent course was without event, the wound healing by first intention. Union was firm in nine weeks.

J. A. Cameron, white, male, *Aet* 50, railroad hand, admitted to hospital January 16, 1907. While at Eunice, La., two days before admission fell from a platform to the ground, a distance of about four feet, landing on right foot, breaking both bones of leg. A few hours later when seen by a local physician, temporary splints were applied.

When he arrived at the hospital limb was much swollen and discolored, reduction was accomplished as well as possible at the time, and a plaster of Paris dressing applied. About three weeks later this was removed; considerable displacement was noticed, as shown in the accompanying skiagraph, which was taken after cast was removed, the tibia was broken just below the middle, and the fibula at a much higher level; the lower end of tibia was drawn upwards and backwards with a pad of soft tissue intervening, between the two ends of the bone. Operation was delayed for some time as patient was reluctant to give his consent.

On March 29, nine weeks after primary injury, under general anaesthesia operation was performed on the lines laid down in the following discussion, with the loss of one-fourth of an inch in the length of the limb.

The subsequent course was uneventful. The wound healed by first intention. He got out of bed during the third week using an ambulatory splint. The position of the bone was good and the seat of operation never gave him any trouble. He left shortly later with firm union.

C. W. Quarles, white, male, *Aet* 20, admitted April 5, 1907. November 1, 1905, was caught in a conveyor, suffering a com-

pound fracture of right leg, just below middle. An open wound resulted which never healed; he got about on crutches and could bear no weight on leg. April 19, 1906, was operated upon in Texas and several comminuted fragments of bone removed, resulting in a loss of about one inch in the length of the tibia. The wound healed following this, but he could bear no weight upon it. Upon admittance to hospital examination showed a long scar bound down to the ends of the bone, a distinct gap could be felt between them united by a fibrous band. The skiagraph shows this condition beautifully, also a bridge of callus uniting the two lower ends of the tibia and fibula.

Operation April 26, 1907, with resection of a part of fibula sufficient to permit approximation of the ends of the tibia which were notched and brought together.

The soft parts showed that they had suffered tremendous injury; they were much distorted; between and around the bones were masses of fibrous tissue; owing to this condition the bridge of bone between the tibia and fibula was not divided, this will interfere somewhat with the result, but it was thought better to secure a good result, than to risk too much in an effort to make it perfect.

His progress after operation was satisfactory, a little temperature resulting when part of the old scar sloughed, this cleared up without any bad results.

Firm union resulted in eight weeks. He deserted before a second skiagraph could be obtained.

Before dealing with non-union and vicious union we should first have something to say about delayed union and its treatment.

DELAYED UNION: Delayed union may be said to exist when union is delayed to six, eight or twelve weeks. If after this time no union has occurred, non-union may be said to exist.

The causes of delayed union are constitutional and local. Constitutional causes are at fault but rarely, as fractures heal well in some cases in the presence of nearly all constitutional conditions. However, these conditions when present should be considered, such as pregnancy and lactation, anemia, scurvy, infectious fevers, cancers, senility, diseases of the nervous system—as tabes dorsalis, nephritis, alcoholism, etc., and corrected when possible.

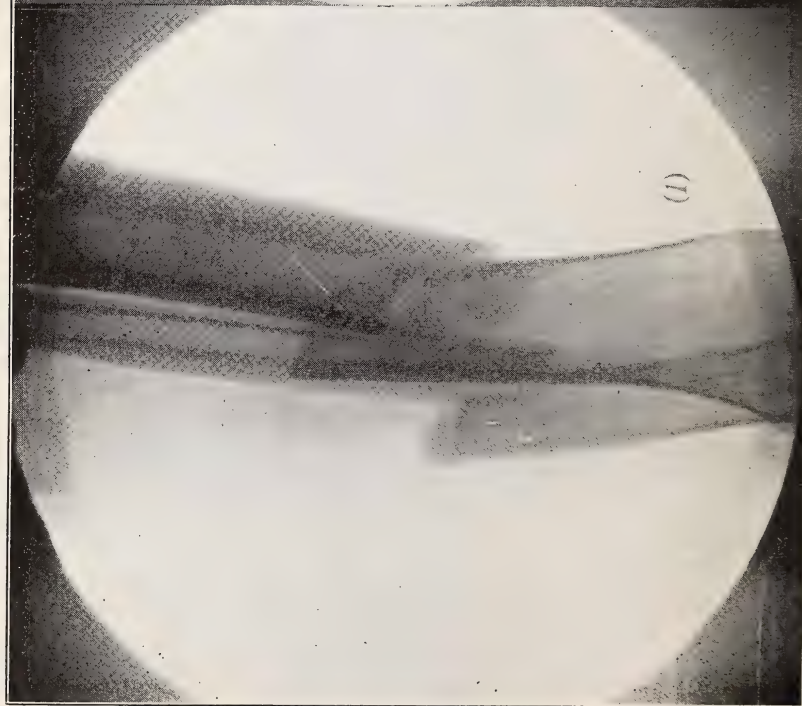
LOCAL CAUSES: Imperfect immobilization is by far the most frequent cause and its correction generally results in union, but we may have disturbances in the blood supply, wide separation of fragments, interposition of surrounding tissues, etc.

TREATMENT: When union has not occurred within six or eight weeks and the ends of the fragments are in apposition, a simple ambulatory splint generally answers all requirements, enabling the patient to get about and maintaining the fragments in position but permitting just enough friction and pressure between their ends, resulting in sufficient irritation to stimulate osteogenesis and enable the gap to be bridged by bone. It is generally necessary to wear one of the braces or splints three or four months, seldom longer. The most useful splint we have found for these fractures consists of a stiff piece of sole leather, moulded snugly around the leg from the knee to the ankle and open in front where it is provided with eyes for lacing. This is reinforced by a steel band on each side, running from the knee above, down to the side of the shoe where it is fastened and provided with an ankle hinge. Such an arrangement is cheap, holds the fragments in position and supports the limb in walking. Its great advantage is that it is readily removed, which should be done every night and the limb thoroughly massaged and bathed, a very essential thing in the treatment of these conditions and should never be omitted.

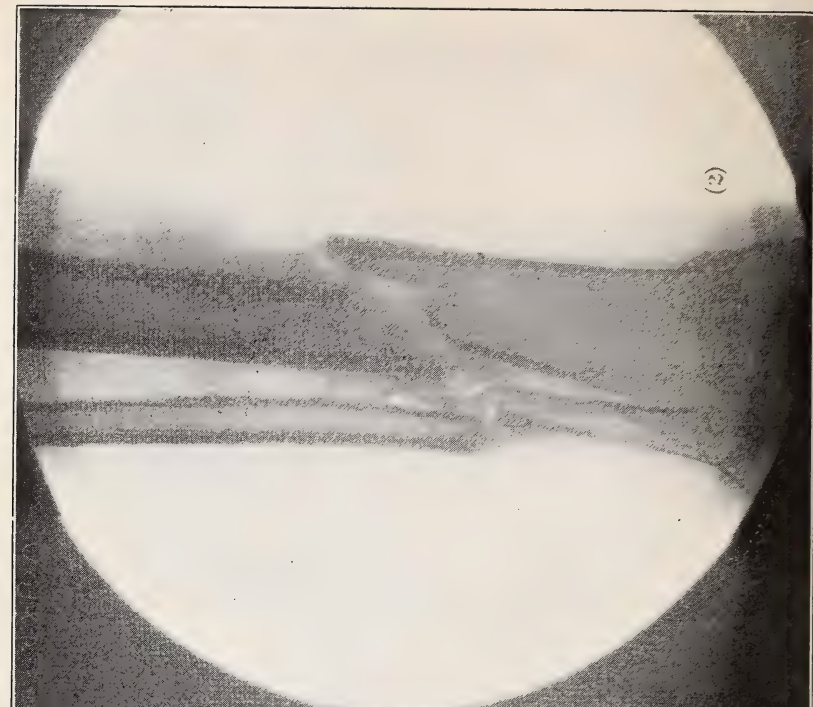
Should the fracture remain ununited after two to four months of the above treatment, we must consider some other means to bring about osseous repair of the break. The simplest of these is passive hyperemia by the Bier method, induced with a rubber bandage. Two other methods deserve consideration and may be considered as the minor operative methods.

These are: Irritation of the ends of the fractured bones by some sharp instrument, such as a drill passed down in contact with them and made to gouge or scarify the ends in several places. The resulting slight hemorrhage and irritation generally leads to new bone formation.

The blood injection of Bier. This was devised by him to replace the unsurgical and uncertain method of percussion or hammering the fractured ends, sometimes used with a view of encouraging new bone formation by the inflammation set up. Bier,

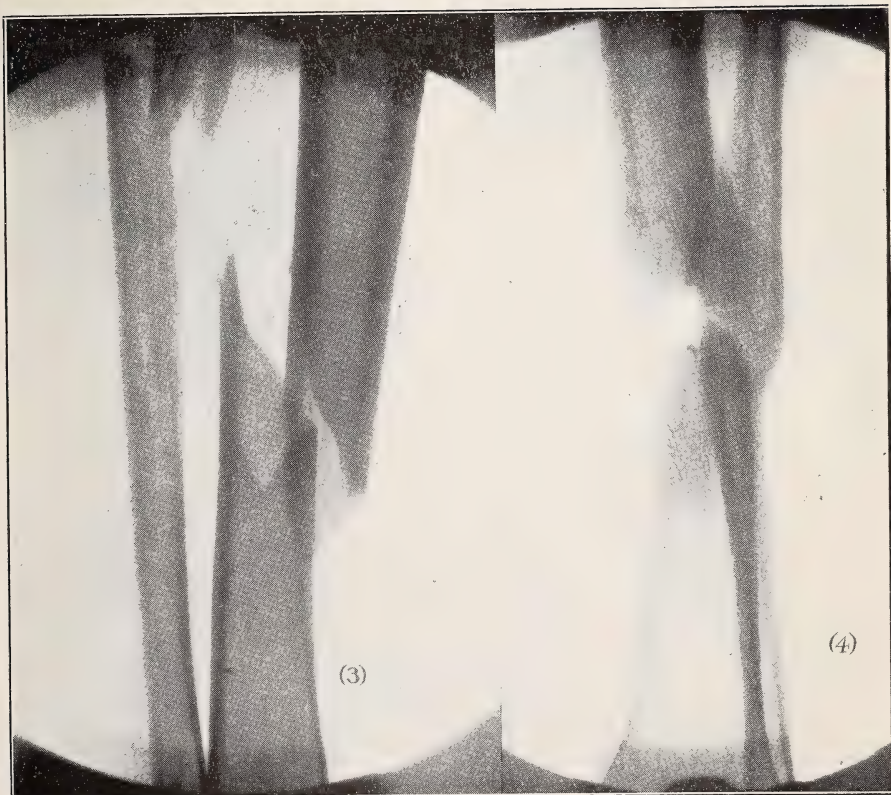


Before Operation.



CASE I.

After Operation.



Case 2. Before Operation.

DR. ALLEN'S PAPER.

Case 3. Before Operation.

with a sterile syringe, draws about an ounce of blood from the superficial vein, and immediately, before coagulation take place, plunges the needle into the interval between the fractured ends of the bone and empties its contents at several different points.

The clot thus formed and the irritation brought about by the puncture encourages osteogenesis. The blood injections generally have to be repeated 4 to 6 times, and should be done at intervals of a week.

I have used the above method several times and have found it very satisfactory.

The injection between the bone fragments of irritating substances, such as iodine, has been resorted to, but their use in this way may give rise to trouble, and can accomplish no more than the above safer method.

We now come to consider the open operation. This may be necessary as a primary procedure, that is shortly after the injury, where:

1st. Reduction may be possible, but can not be maintained as in oblique fractures.

2nd. Reduction may be impossible as when due to the interposition of soft parts.

Secondarily, it may become necessary as a remote procedure under three conditions:

1st. Non-union that has resisted the more conservative methods.

2nd. Wide separation of fragments due to loss of bony substance, as in compound comminuted fractures.

3rd. Vicious union producing shortness or distortion.

Studying the causes of non-union in connection with X-ray examinations, we find one of the prime causes making operation necessary is displacement of the fragments; this occurs to a great extent, even when union occurs, and is the rule rather than the exception.

An examination of the lower limb after fracture, will show that many cases have united in faulty position, but still with good functional results, they will not stand the test of the X-ray, which however, is not a criterion, but clinically may be pronounced good. The causes producing displacement here as elsewhere, are muscular contraction.

Scudder, in the last edition of his excellent book on fractures, says, under this head:

"The nearer to the ankle joint the fracture is, the greater is the likelihood of a displacement, which is hard to hold reduced.

The contraction of the quadriceps extensor tends to pull the upper fragment forward, the contractions of the gastrocnemius tends to pull the lower fragment backward and upward.

[The obliquity of the fracture and the action of these two groups of powerful muscles, make it an almost impossibility to hold these fractures perfectly reduced."

Two of my three cases at operation showed an interposition of the soft parts between the fractured ends, in addition to faulty position, and so arranged that reduction could not have been accomplished by the usual methods of manipulation. This is shown well in the skiagraph.

The X-ray in this work is of tremendous value; manipulation of the limb and its external appearance, give but a poor and frequently erroneous idea of the conditions of the bone. Without a good skiagraph, we could form no definite plans as to the exact procedure necessary.

WHEN BEST TO OPERATE:—The time for operation in primary cases calls for some judgment. In cases seen early, within the first 24 hours, when there is not much injury to the soft parts, operation had best be done at once. Where there is extensive injury to the soft parts, or where several days have elapsed before first seeing the case, delay should be advised until the local inflammation subsides, sometimes about the second week, when there will be less danger of infection. Dr. Matas, in his contribution to the discussion on fractures, read before this Society in 1901, in quoting from Stimson, cites the following:

"The risk of primary interference by operation is, I think, less the more promptly it follows upon the receipt of the injury. If it is done within the first 24 hours, the condition is then practically that of an operation upon previously uninjured tissues, and the same confidence may be felt that primary union will be obtained, but if the 3rd or 4th day has been reached and the tissues are swollen and infiltrated with extravasated blood, the same confidence cannot be felt, and it is better to wait for the subsidence of the swelling and the absorption of the blood."

Scudder, in his last edition, gives practically the same advice

THE OPERATION:—Have a constrictor well applied on the thigh after carefully exsanguinating the limb. Make a curvilinear incision 6 or 8 inches long on the anterior surface of leg, over the part of bone to be exposed, the two ends of the incision crossing the crest of the tibia, this is preferable to a straight incision over the crest of the tibia, as the cicatrix might become adherent to the bone and give trouble afterwards, if the fibula is broken at the same level, or has to be exposed for resection, direct the convexity of the incision over that bone, otherwise, it can be directed either way. Peel the skin flap up. If any superficial nerves are encountered, retract them to one side and make a longitudinal incision through the fascia and periosteum for a distance of 4 to 6 inches down to the bone. Peel these flaps off in both directions with a periosteotome, denuding the ends of the bone, using the knife if necessary when they are bound down between the ends of the bone; preserving this periosteal sheath is of much consequence, both in maintaining apposition in the terminal stages of the operation, as well as being essential to the integrity of the bone. Pass a curved instrument, such as a Parker retractor, around the bone, shelling off the periosteum throughout its entire circumference. Disengage the ends of the bone by prizing them loose with a periosteotome or chisel, separating any soft parts that may be interposed. Care should be taken to avoid injuring the anterior tibial artery and nerve which lie in contact with the shaft of the tibia. If the fibula is broken at the same level, treat it in the same way, if it has to be resected as when part of the tibia must be sacrificed to get apposition the fibula had best be divided now on the same level, using a Gigli saw. The ends of the bone can now be bent over a block at right angles to each other, and be made to protrude through the wound. This is the ideal condition, and facilitates the paring and resection of the ends of the bone very much. In case of transverse fractures, shaving off a minimum slice of bone from each end with a saw just sufficient to denude the surface, treating the fibula the same to make it match, will be sufficient. If there has been displacement and the bone is hard to hold reduced, a notch or step can be cut in the bone in any direction necessary to make them fit and prevent slipping. In oblique fracture a notch or step will probably be necessary, and with a little calculation can be done so as to sacrifice very little

of the length of the bone. This paring of the bone can be done with the chisel if necessary, but as there is danger of splintering the bone, the saw is preferable.

An important consideration in operating in cases with much displacement is to make the notch or step in the bones in such a way that they will each resist the redisplacement of the other, that is, if one fragment is displaced anteriorly and the other posteriorly, notch the posterior fragment on its posterior surface and the anterior fragment on its anterior surface; these notched surfaces when placed together resist further displacement. Or, if preferred, a V shaped notch can be cut in the end of one of the bones, and the other wedged to fit it.

When the operation is done for the correction of vicious union, the steps of the operation are the same until the bone is reached. This should be carefully exposed, bringing the old line of fracture and the overlapping, or angular bones well into view. These should be chiselled or pried apart if the line of union is not too firm. The Gigli saw may sometimes be used to advantage here, sawing the callus longitudinally between the overlapping fragments. When freed, it will probably be found that complete restoration of the original length of the limb is impossible, due to permanent contracture of the muscles and formation of bands of adhesions, particularly in cases of long standing, and the limb will be permanently shortened to the extent of the overlapping of the fragments. Some little lengthening can usually be gained by steady traction of the limb and the fragments of the bone sawed at right angles at this level. The final steps of the operation in both cases are the same.

Next carefully examine the wound and remove all comminuted or detached fragments of bone, and divide all bands of fibrous tissue that might prevent apposition. When the tibia and fibula have been broken at different levels, separate incisions must be made over each, and as they cannot be bent at right angles in this position, the shaping of the ends of the bones must be done as they lie in the wound; this can be done with the Gigli saw, though not with the same facility as when the bones are protruded from the wound; however, in the former condition the Gigli saw is invaluable, and almost a necessity. In all of these resections the normal position of the limb must not be lost sight of and the relative

positions of the various bony prominences must be constantly kept in mind and frequently compared. The bones must next be replaced in the periosteal sheath. The use of the various retentive measures, such as bone ferules, pins, screws, nails, wiring and clamps are *entirely superfluous*, and when used are likely to work harm and defeat the very object for which they were intended; in rare cases where anything is necessary, drilling the bone and using some absorbable animal material, such as kangaroo tendon or cat gut is much to be preferred, care being taken not to tie it too tight, but allow some little play. Absorbable mechanical appliances, such as aluminum intermedullary splints may sometimes be used to advantage.

Dr. Matas particularly emphasizes this point, and I will quote from his paper which I have referred to above. He says:

"Speaking on the basis of personal experience, I must confess to a growing aversion to all forms of foreign bodies used as aids, if left permanently in the wounds. The trouble with foreign bodies, especially those of a metallic character, is, that in the course of time they give rise to irritation and must be removed.

"I cannot recall one bone case in many, that I have treated by wiring, including fractures of the jaw, humerus, femur and tibia, and in excision of joints, in which ultimately I was not called upon to remove the wires or ivory nails that I had used as the means of fixation."

He says further: "I also believe it a fallacy to trust to the demonstration of appliances of fixation upon dried dead bones. The conditions met in living pathology (fractured bones) are entirely different; we must bear in mind that a process of rarefaction or softening sets in immediately about the foreign body, no matter of what kind, and that pins, screws, wires or staples used, soon become loosened and rapidly cease to be of value as retentive appliances."

The final steps of the operation after the bone has been pared is to replace them in their periosteal sheath approximating the ends. This sheath is carefully sutured over the bone, serving to retain the ends in apposition, the muscles approximated by buried sutures and the skin finally closed; if there has been much mutilation of the soft parts a small gauze drain may be left in the wound as a rule. No ligation of vessels is needed, as nothing

but superficial veins and a few small muscular branches of the arteries have been divided. During these last steps of the operation it is necessary to have an assistant carefully hold the limb in position until the final dressing is applied; this can be either plaster of Paris, or what I prefer, a long posterior gutter splint, with a foot piece, and extending above the knee. A liberal quantity of both absorbent and batting cotton must be used, and the whole bandaged firmly. After all has been finished and the constrictor is removed, there will be some oozing of blood, maybe enough to appear at the ends of the dressing, but never enough to be of consequence. When in doubt the constrictor can be removed earlier, before the wound is closed.

The limb is kept elevated for the first 24 hours. The dressing is not removed until about the end of the second week, unless temperature should result. Should infection occur some skin sutures may have to be removed, but this was not necessary in any of the three cases reported here. The patient is allowed up on an ambulatory splint after about two weeks, and the case conducted the same as any fracture, except that I find repair requires longer, generally about two months for firm union. Repair can be very much hastened and the comfort of the patient improved by removing the ambulatory splints daily for a massage and bath. In doing these operations we must give up the idea, if ever entertained, of making a carpenter's or cabinet-maker's joint with the bone, this, when possible, of course, is desirable, but too often it can only be done at a great sacrifice in the length of the bones.

All that is intended and all that is necessary is a fair approximation of the denuded ends of the bone where, if your after treatment is carefully carried out, good union will occur with a functionally useful limb.

Where resections of the bone are necessary, some shortness of the limb is inevitable, but, as repeated examinations have shown that the two limbs are frequently of unequal length, sometimes to the extent of an inch, resections not exceeding this extent are not likely to be of consequence, the pelvis tilting to accommodate the inequality. An inner sole or a high peel may be necessary, or, in extensive resections a high shoe.

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DR. L. LAZARO, of St. Joseph, read a paper entitled

Why Louisiana Should Have a Free Sanitarium for the Treatment of the Poor Consumptive.

When I became a candidate for State Senator I issued a platform in which I said: "I believe Louisiana should have a sanitarium for the care of the poor consumptive. It would not only offer a chance of recovery to these poor victims, but would also furnish a place for the observation and study of this dreadful malady, and thereby save thousands of lives annually. It would also be an institution for the education of the people; the knowledge there obtained by the patients would not only be a benefit to themselves and their families, but to all the people." Now, I expect to ask the next Legislature to pass a resolution creating a commission, composed of competent and experienced men, to study and report as to the construction, cost, equipment and maintenance and location of a sanitarium for the treatment of consumption. Knowing that it is the duty of the physician, on account of his knowledge of disease, to always lead in any movement that concerns the health of the people, I first make the appeal to you: to lead, as the members of the profession have in all the other States where such institutions were created, and make this a success in Louisiana.

It is unnecessary for me to take much of your time in picturing the fearful havoc wrought by consumption; the story has been told often before, and to many of us has a personal bearing; nor will I attempt to establish the claim that it is the duty of the State to assume the responsibility for the control of such a scourge. It is a well-known fact that the health of every community is the measure of its well-meaning, and cannot be measured in coins.

It is a satisfaction to know that after years of indifference, the general public is fast awakening to the right conception of disease and of the great economic importance of intelligent and systematic measures to control it. Ignorance, prejudice and heartless greed have ever been ready to overcome all efforts to control the spread of contagious disease. In meeting with such unreasonable influences, the task of the workers for sanitary reform has been filled with difficulty and discouragement. But at last, costly experience has made plain to even the most skeptical the advantages secured by organized effort to control the acute contagious diseases.

It is only within the last few years that the methods of transmission have been well understood. But, after all, we are not so much concerned with the origin of the disease and do not care whether or not it originated in Egypt and was communicated to the world by germs slumbering for centuries in the dust of mummies, as contended by Prof. Sornac, nor with the pathologic and clinical features of the disease, nor with the manner of the introduction of the germs or bacilli into the human beings; but we are face to face with the stubborn fact recognized, that the disease is transmitted from the sick to the well by infection; that it is killing more people today everywhere than any other disease, and that it can be prevented, and the main question is: How may the disease be limited, controlled and cured, and perhaps in time eradicated? I claim that the only place to observe and study and treat consumption systematically and intelligently is in a sanitarium. I claim also that the best place to educate the unfortunate victim of consumption so that he will understand thoroughly, not only how to protect himself, but the members of his family and neighbors, is in a sanitarium.

Experience proves that upon popular education only we must ultimately rely for the prevention and cure of consumption in this country. Of course, the people can be educated to a certain extent by teachers, publications and exhibitions; but here, as elsewhere, a pound of practice is worth a ton of theory, and it is in the sanitarium only that the theory is applied in practice.

We are confronted with the plain fact that consumption exists in every city and State in America, and in every country and clime, and that it is no respecter of persons, race, age or class—that none can claim to be immune. It is a merciless destroyer, and may invade any home. It can be taken almost anywhere. It is the most insidious of the diseases we know. It creeps upon us without the slightest warning, and, like the expert thief in the night, it snatches away from us the brightest and best, the low, the high, the smiling and laughing babe, the rosy and loving mother, the young, robust and strong, and the weak, tottering old man. It desolates happy homes all over this beautiful land of ours, and brings sorrow and grief and suffering to thousands of hearts, blighting hope and paralyzing ambition. Like the internal worm in the bud, it is sapping the vitals of our race and is setting

back that progress of civilization that should develop and progress, morally, physically and intellectually. In the wide range and scope of our social science, as broad and comprehensive as it is, embracing as it does every interest of the social body, its commercial, industrial, financial, scientific, religious, political and economical interests, there is no more important subdivision than that of public health. It should be very plain to any thinking person that this is the one vital subject, the very foundation upon which rests the prosperity, the welfare, the perpetuity, the very existence of a state or nation!

Legislation in the interest of public health is legislation in the interest of public morals, and yet it is strange to say that this is given less attention by government, less understood, less safeguarded than any other interest, private or public, personal or property. Consumption destroys more lives than plague or pestilence and famine, battle, murder and sudden death—and yet it is a preventable disease. What a sad commentary upon our civilization and boasted enlightenment! We have a hospital for the other diseases, an asylum for the insane, institutions for the deaf and the mute, but no place for the poor consumptive. Oh, how we do hasten slowly! It is a well-known fact that we do make slow progress in preventive medicine, a progress out of proportion to the advances made in any other line of human thought and activity. Why, it was only recently that we were put to shame by the little Japanese nation who, in their unequal struggle with Russia, were the first people on earth to practically apply the principles of sanitary science to the prevention of disease. We know that savages and beasts must adapt themselves to their natural environment or die—intellectual man must conquer his environment; he must make the material resources and the forces of nature subservient to his use and the progress of civilization; he must seek, find and remove the causes of sickness and death and make the uninhabitable places populous and prosperous. Years ago the laborers on the Isthmus of Panama perished by thousands, to such an extent that the work was marked by the bones of untold scores of human beings who just simply could not adapt themselves to the death-dealing influences. American skill and learning have by the simple application of the science of sanitation robbed the swamp of Panama of its terrors and before long that gigantic feat of engineering, which

severs the American continent, but unites the two oceans and shortens the distance from the Occident to the Orient, will be accomplished.

Only in this ability to conquer environment lies the civilized man's chief claim to superiority in the animal kingdom. The well-known law of the survival of the fittest in the hard struggle for existence applies to races and nations as well as to individuals, and is the main factor in their evolution into strength, stability and permanence. That nation is not the fittest that has the largest number of people; a people may be numerous, but defective in the elements of vitality, like an overburdened tree where none of its fruit may ripen.

"Ill fares the land to hastening ills a prey

Where wealth accumulates and men decay."

Our government enters into a contract with its citizens either written or implied. Every adult man is required to perform military duty when called upon to take arms, to serve upon the jury, to give testimony in court, and to pay taxes in support of the government; in return for this he is guaranteed by law protection to his life, liberty and the pursuit of happiness, and in the possession of the fruits of his labor; every safeguard is thrown around these by special enactments by law, and no man without warrant of law may invade his premises or touch his person or possessions, but very little protection is given him in respect to his health, the dearest interest of all. A law to protect the public from poisonous food was fought in the Congress of the United States seventeen years. The indifference to the ravages of consumption, the fearful and unnecessary waste of life, is the more remarkable when we recall the fact that about seven millions are appropriated annually for the health of plants and cattle, about two million for the saving of life on the sea coasts, and about a million and a half for quarantine against yellow fever, and nothing for consumption.

It is certainly very sad to know that every advance in science, the discovery of every truth, has to fight for recognition against blind bigotry, ignorance and prejudice. It is now recognized that air, light and pure water are the life essentials; the people are beginning to understand that night air and cold air and cold water are not poisonous, and that the principal, if not the only, chance for recovery of a consumptive is that he should "return to nature,"

live out of doors. In 1885, Dr. Henry McCormack published a book covering the subject, and in 1861 read a paper before the Royal Medical and Surgical Society, in which he advocated what are now established principles. The members of the society refused to even pass the usual vote of thanks to Dr. McCormack because they thought the paper was read by a monomaniac.

Since the King of England endowed a great sanitarium for the treatment of consumption, the establishment of out-door sanatoria has become popular and successful. Year before last I attended the International Congress on Consumption in New York city, and had the pleasure of hearing very able papers by experts connected with the leading sanitariums of the different countries, and it was certainly a great satisfaction to know of the good work being done every day in these institutions. I must say that New York has reason to be proud of her typical institutions, one at Saranac and another under military discipline in Sullivan county. It is only by prevention that the disease can be controlled, and by hygienic measures that it can be cured. Consumption is an infectious disease in the sense that the poison or germs thrown out by the patient in the secretions may and do infect, and hence communicate the disease to well persons. The consumptive is not a danger to be shunned and fled from like the plague; he is not a leper to be avoided on all occasions. It is a well-known fact that he can be rendered harmless by the observance of simple and rational measures, and may and will recover entirely under proper hygienic conditions and environments; and here, let me say a word concerning the exploded yet popular fallacy that consumption is a hereditary disease. It is not. It can not be transmitted from parent to child; but the child may and very often does acquire it in the way that we know it is communicated—by infection from the expectorated matter that contains the poison (tubercle bacilli), or perhaps by nursing a consumptive mother. It is the pre-disposition to consumption, the soil, that is inherited, and this brings us to the importance of guarding that soil and keeping it in such a condition that the germs or seeds will not grow on it. Here, as among plants, the seeds will not grow unless the soil is favorable for the growth. Physicians and sanitarians meet and discuss these things in the medical press; but, unfortunately, the public do not get the benefit of it, and the lay press as a rule is a little slow to publish such matter. I believe the time has come when the edi-

tors of the lay press, the real educators of the public, should understand and appreciate the tremendous importance of disseminating the information—even if they have to neglect a little political or sensational matter. As it is now, we are like a convention of teachers holding sessions with closed doors—the pupils of the school do not get the benefit of the teaching.

The hope of ultimately exterminating consumption, however, is not so encouraging; it is a disease of civilization, a house disease, and is an incident of the artificial environment of life. People in order to get artificial warmth must shut out the cold air; not many understand the principles or practice of ventilation and lighting. Therefore, it is plain that from what we have said and what we know that we should have in Louisiana today a first-class out-of-door sanitarium, not only to relieve or cure the poor victims of this disease, but as a center to observe, study, treat and educate them; they would not only leave this institution cured and happy, but they would go back to their different communities as the very best teachers to educate the public. Let us pause one moment and think of the investment—how much this little sum of money would bring back to us. England has set an example that should be emulated in the King's Home for Consumptives, which was opened by the King in person in June last. For this great humanitarian work Sir Cassel presented him with one million dollars. Here is an example that should appeal to the numerous American millionaire philanthropists. What greater good to humanity, what greater and more lasting monument could be built to the memory of the donor? Let us hope that our distinguished Louisiana representative, Ransdell, will succeed in passing his bill creating a public health department, and that before very long the National Government will help us out. The time has come when the people should take up the work and insist that the voice of science shall be heard and heeded; that the great truths revealed by long, patient and laborious investigations and experiments, truths vital to the interests of mankind, shall be utilized in the saving of life.

We are spending money freely to bring strangers among us—let us spend a little to save our own. The private sanatoria now in operation in our country are doing splendid work; but they are costly and the poor cannot enter them.

Now, a few words concerning the progress of the sanitarium movement in America. Let us see what other States are doing.

The first State sanitarium was established by Massachusetts at Rutland, fifty miles from Boston; it had last year an average of 257 patients, and has been in every way successful, 73 per cent. of the incipient cases discharged in the last year having had the disease arrested or apparently cured. The next was that of New York, results very good. Here I wish to call your attention to their excellent plan of admission, which is granted in order of application upon recommendation by local authorities, and after an examination by local physicians.

On five other State sanatoria a beginning has been made. In Rhode Island it was a question whether the management should be put in the hands of the State Board of Charities or a special commission, and was decided in favor of the latter. This one will accommodate 240 patients and will be opened next fall.

In New Jersey the contract has just been let and the building will be erected by the first of the new year. Minnesota has appropriated the money to start one. In Ohio a commission was appointed with an appropriation to provide a site and make plans. In New Hampshire a sanitarium is assured. In three States bills are pending. In Illinois the agitation began a year ago by the State Medical Society; in Michigan a bill is being vigorously urged by the State Board of Health; in Wisconsin the Tubercular Commission, appointed by the Legislature of 1903 to investigate conditions, has just made a favorable report; in Maryland a commission has just been appointed to report on the cost of building one; in Pennsylvania the bill was vetoed by Gov. Pennypacker, not because of any objection to such an institution, but because the bill was loosely drawn and opened the way for abuses. If time permitted it would be interesting to study the objections which justified the veto in order to avoid like faults in any efforts made elsewhere. There are other States working along the same line, but time will not permit us to go over all.

In 1898, Surgeon-General Wyman took up the question and in 1899 the old Military reservation at Fort Stanton was turned over to the Marine Hospital Service, and there are at present in that institution 200 consumptives under treatment. In 1899 Surgeon-General Sternberg established a United States General Hospital for consumptive soldiers of the United States army at Fort Bayard in New Mexico, and the results have been very favorable. As to

municipal sanatoria, there are several in this country, and they are doing good work.

Now, all this experience with sanatoria for consumption has demonstrated certain things:

First. Climate is not an essential or even the most important factor in its treatment. What was once said of whiskey applies just as well to air: "Some may be better than others, but none of it is poor." While, of course, it is much easier to lead an open-air life in a dry, clear climate and the general condition there may be more favorable, almost as good results can be obtained with proper care in almost any State. We must take into consideration too that from California, Arizona and New Mexico come a humane protest against longer setting consumptives adrift with slender resources or none at all to fight the disease among strangers. Dr. Norman Bridge, who is an expert of wide experience and observation, and who yields to no one in his praise of California declares that he would rather have a patient under proper conditions in an Eastern city than to send him to some better climate to shift for himself.

Second. Fresh air, rest and nourishing food in abundance are necessary, and the patient must be faithful and regular in all his habits. We all know that it is practically impossible for him to be so outside of a sanitarium. The fight to cure consumption is a long one in which the carelessness of one day may undue all the benefits of care of the preceding thirty days. "When you tell a man to do a thing, you are just half done; the next thing is to see that he does it."

Third. Competent medical supervision; men of force and intelligence, selected not on account of "pull" but strictly on merit. The public welfare demands that Louisiana shall work provision for the poor consumptives the same as it does for the suffering from other diseases; the insane, the deaf, the blind, and the mute; furthermore, such a sanitarium is an educational institution—the knowledge there obtained is a benefit to the citizens of the whole State. It might not be quite proper that the State after having provided a sanitarium should be asked to bear all the expenses. In Massachusetts and New York the patients who are able pay at least a part of their cost of maintenance, and if they are unable to defray in part their expenses the local authorities at their home place

help. Various efforts are being made to find some occupation by which those able to leave the hospital could earn a living without interfering with the completion of the cure.

Now, let us see what could be done in Louisiana. A sanitarium here would not be an experiment. Dr. Durel, of New Orleans, who was a competent and successful practitioner of the city, was compelled to leave on account of his health, and he established a private sanitarium for the treatment of consumption near Covington. At the meeting of the State Medical Society in 1906, Dr. Durel gave his results as follows (in part): "As you have seen from the above, of the thirty-eight cases which have been treated by the sanitarium method of treatment which we follow at the Louisiana Tuberculosis Sanitarium in Covington, the twenty-two cases which have remained under treatment the required length of time have all been discharged as apparently cured. That by the combined hygienic, dietetic, rest and open-air treatment 'under rigid' and strict sanitarium surveillance and discipline, with the aid of different medications and the use of culture products, we have obtained the satisfactory above reported results."

I had the pleasure of Dr. Durel's company at the meeting of the International Congress on Consumption, and he told me that he was getting the very best results. This means that in our own climate of Louisiana we can master consumption. Let the physicians be true to their missions and lead in this good work, let them continue to be the apostles of one of the grandest of sciences—the science whose aim and endeavor is to save us from the torture and physical agony of death and to prolong lives; the science which year in and year out, in spite of absurd attacks and unreasonable opposition, is progressing and making for headway in clinic, laboratory and dissecting room by patient observation and tireless experiment, its devotees work day and night and the voice which inspires them is the cry of suffering humanity. The science which needs no wordy vindication because its vindication is written in the practical elimination of cholera, small pox and yellow fever; is written in the discovery of anesthetics, antiseptics and antitoxins. Yes, upon the shoulders of the physician has indeed fallen the mantle of a mission: to redeem us from illness and physical suffering is his work; to carry the cross of a crusade against the cruelest devils which torment the human race (disease and death), this is his

calling; to offer a soothing balm to all who feel the pangs of pain, this is his vow. In conclusion, let us appeal to all the people to help us in this crusade against this cruel devil known as the "Great White Plague"—Consumption.

DR. FRANK J. CHALARON, of New Orleans, read a paper entitled

Gleet—Its Causes.

By gleet I mean that chronic urethral discharge, whose presence is manifested by the appearance of a drop of pus, muco-pus, or even clear mucus at the urethral orifice, or at times only by the glueing together of the lips of the meatus. This drop is usually found on arising, and in many instances at no other time; hence its common appellation of morning drop. It may be colorless, opalescent, grey, white, or yellow, and its consistency may vary from a thin, watery fluid to a gelatinous mass. On microscopic examination, it reveals the presence of pus cells, mucus bands, epithelial cells and innumerable bacteria, some of which, such as the gonococcus or the staphylococcus, are pathogenic, but most of which have so far been considered innocuous by the best authorities.

Gleet is not a disease, but a symptom of an existing lesion, whatever the causative agent may have primarily been. This chronic discharge has from time immemorial been a bug-bear to the profession, and though better knowledge of its etiology, improved therapeutic agents, and modern instruments are ours, it has not quite lost its terrors. With the discovery, by Neisser, of the gonococcus, and with its acceptance by the medical world as the sole cause of gonorrhea, with improved facilities for medical education, and more rapid dissemination of medical knowledge, more accurate and rational treatment of gonorrhea has been instituted. The prevalence of gleet as a sequel of acute urethritis has therefore slightly diminished, but there still remains a sufficient number of uncured patients who testify to the deficiencies of our methods, and to spur us to further endeavor in this line of scientific research. These uncured patients are the modifiers of our professional self-conceit, forcing a realization of our faulty therapeutics, inaccurate diagnosis and especially of that lack of control of the patient which is so essential to his proper treatment. Since 95% of cases of

gleet are directly or indirectly the results of a previous gonorrheal urethritis, most of this paper has been devoted to the consideration of gleet as a sequel of gonorrhea.

CAUSES—Errors of Treatment During the Acute and Sub-Acute Stages—Strong caustic injections, by destroying the epithelium, promote and assist the migration of the gonococci to the deeper tissues; traumatism of the inflamed urethra, often caused by too strong an irrigating stream; too early intra-urethral instrumentation, not only causing traumatism of the delicate mucous membrane but carrying infection to the posterior urethra; repeated instrumentation at short intervals, by not permitting the urethra to recover from the consequent inflammation producing an irritative urethritis; the early and prolonged use of balsamics and other urinary anti-septics by disturbing the stomach and diminishing assimilation lower the normal resistance of the patient; balsamics in large doses are also a source of irritation to the whole urinary tract; finally, I am sorry to say failure to properly instruct the patient regarding the dietetic, sexual and hygienic conduct of the disease.

Causes Arising From the Patient—Congenital malformations, such as epispadias, hypospadias, pseudo-hypospadias, contracted meatus and other marked diminutions of the urethral calibre by interfering with the proper treatment of the acute stage may prove causes of chronicity; the tendency and predisposition of certain individuals to catarrhal discharges, probably the result of lowered resistance to the microbial infection. Inquiry into the history of those patients will usually bring forth a record of catarrhal affections of other mucous-membranes; all conditions tending to diminish the phagocytic power of the leucocytes permitting the bacteria to locate themselves at points of vantage from which it is more difficult to rout them; the passing of uric acid and gravel by acting as mechanical irritants to the urethral epithelium; over-indulgence in violent muscular exercise of the lower extremities, such as running, jumping, dancing, by increasing local congestion contributes to the establishment of a gleet.

Lydston says: "That intemperance and faulty sexual hygiene are perhaps the most important of all etiologic factors in chronic urethritis."

Addiction to the use of alcohol in its various forms, increasing

congestion of the portal circulation, lowering tissue resistance and adding irritating constituents to the urine, is a most frequent cause of gleet; also, repeated and prolonged excesses in venery causing chronic congestion and hyper-secretion of mucus, independent of any microbial infection.

Sexual excitement without gratification is more frequently responsible for gleet than is moderate sexual indulgence, in fact moderate sexual intercourse when no gonococci exist in the discharge is beneficial to some gleety subjects.

The habit that many ex-gonorrheics have contracted of squeezing the penis and milking the urethra to hasten the appearance of their morning drop causes irritation of the mucosa and serves to perpetuate the trouble.

Consideration of Chronic Gonorrhea—In the healing stage of urethritis, the newly formed epithelium growing from the deeper layers towards the lumen of the urethra carries with it the gonococci and eliminates them. However, if for any reason there should be recurrence of the inflammation, the deep epithelial layer is ruptured by the exudate and the gonococci find their way back to the papillary layer.

After the subsidence of the acute stage of gonorrhea, the greater portion of the urethral mucous-membrane regains its normal condition, but certain areas, the crypts of Morgagni, the adjacent glands of Littre, may become the seat of chronic inflammation. It is especially on the urethral roof that their gaping inflamed and sometimes even ulcerated orifices are best seen, or the diseased area is more extensive and while not generally diffused presents spots of roughened infiltrated and granular surface, deeper colored and bleeding easily.

The accompanying discharge, while scant, is muco-purulent and contains many pus and epithelial cells. This is the first stage of stricture, for Finger has shown that there are two stages, viz.: that of infiltration and that of tissue formation.

Extension of inflammation down the minute ducts of Littre's glands produces folliculitis and sometimes abscess.

If a cluster of the urethral glands becomes the site of chronic suppurative inflammation, the calibre of the duct may become obliterated by the exudate and the retained pus seeking an outlet may burrow under the urethral mucous membrane to find an exit in the

canal at a point quite remote from its origin. Thereby forming a peri-urethral fistula and being a source of very intractable gleet. I have seen, in one instance, a fistulous canal situated immediately under the urethral floor, opening near the meatus.

It is not so long ago that stricture and gleet were so intimately connected that the dictum "No gleet without a stricture" obtained. Of course all strictures are not of gonorrheal origin, but the percentage of the non-gonorrheal is so small as to be negligible.

Stricture, again quoting Finger, "is proliferation of cells, catarrhal desquamation, and mucoid degeneration of the epithelium of the urethra, and its lacunae. Also, disease of Littre's glands and infiltration of the cavernous tissue, and as a result of these lesions the cylindrical epithelium is changed to the squamous, the lacunae are obliterated and Littre's glands are destroyed."

If the process continue more connective tissue is formed, and a well defined scar results. Contraction of this scar causes not only a diminution of the lumen of the canal, but also renders it less dilatable and more rigid at the site of the lesion. Continued decomposition of urine retained in the canal behind a stricture produces an irritation which perpetuates the process and provides the discharge.

Prostatitis as a cause of chronic urethral catarrh is considered by Casper to be responsible in 85% of all cases. This figure, I believe, to be too high, however, it should be remembered that when prostatic disease exists the urethra seldom escapes, since it is the natural outlet of any prostatic discharge and is therefore subject to constant irritation or reinfection. Various authors place inhesion of the posterior urethra at from 60 to 90% in all cases of acute gonorrhea independent of treatment, and as posterior urethritis but rarely occurs without some prostatic involvement, this high figure is easily explained. The diverse forms of chronic prostatitis, from mild and superficial catarrh to the acute and violent parenchymatous inflammation of that gland, may become chronic and be manifested only as a persistent gleet.

Chronic seminal vesiculitis, by repeated reinfection of the urethra may be considered as an important factor productive of gleet. Cowperitis, or inflammation of the bulbo-urethral glands rarely becomes chronic, or if it does it is seldom recognized. The secretion of these glands is extremely viscid.

Non-Gonorrheal Causes—Papillomata, polypi, pyelitis, cystitis, tuberculosis of the lower urinary tract, and cancer of the urethra and prostrate glands should all be listed as possible causes of gleet.

In concluding, I wish to plead for more thorough and careful diagnosis, as it is mainly through partial or incomplete diagnosis that most failures are scored. Recognizing a prostatitis, or chronic spermato-cystitis, we rest satisfied with this diagnosis, entirely overlooking a deeply ulcerated crypt, or peri-urethral fistula. Irrigation, instillation, dilatation and massage are successively tried, by the same, or more frequently by different practitioners as the patient seeking severance from his morning drop goes from one to the other. Is it, surprising, then, that many of these patients gradually becoming accustomed to the presence of their gleet and frequently not warned of its probable virulence, marry and carry to their unsuspecting brides the miseries of gonorrheal infection? Or that others, more conscientious, and appreciating correcting the possibility of spreading contagion renounce connubial bliss and end their days in the bleak dreariness of enforced celibacy?

DISCUSSION.

DR. CHASSAIGNAC: The subject is covered so fully and concisely in the paper that there is practically nothing to add. I merely would make one little point, that he has perhaps not touched upon. It is that in cases of very persistent gleet which as usual have been treated in all sorts of ways, and sometimes very strenuously, the moment there is no longer any infection but a chronic discharge without infection, the physician must never lose sight of the fact that at times the best thing he can do towards the recovery of the patient is to give him a rest and stop the treatment entirely for a while. Do not forget that.

DR. LAZARD: This is a very wide subject. Gleet means only a drop. The difficulty comes in stopping the morning drop. In chronic gonorrhea or gleet, which is the same thing, the difficulty is to locate the exact point of the lesion, and that must be done before success can be hoped for. In regard to prostatic massage, I have practised this procedure for something over eight years, and I am of the opinion that it is a good thing that is very much over done. I had one man who had had his prostate massaged so

often and so roughly that he got a spongy condition of the rectum from it. In another case I am sure the continued prostatic massage brought on piles. In gleet it is not always the prostate that causes the trouble. I sometimes say to my patients, "Seek and ye shall find." If you will manipulate the penis roughly you will have a drop of purulent fluid the next morning if there has been a recent gonorrhea. Some men are of the opinion that the condition is due to an ulceration of the urethra, which is a very rare condition. Casper, in his text-book, speaks of its rarity. Anyone who has used the urethroscope knows Caspar is correct. The time has come when gonorrhea in any stage should receive the skilled and patient attention of the physician and the patient not turned away with a prescription containing some widely advertised new prescription, whose promoter's knowledge of publicity is disproportionate to his clinical and laboratory practice.

DR. CHALARON (in closing): I am very thankful to Dr. Chas-saignac for having opened the discussion. I appreciate fully what he has said. After you have learned to do everything, try to learn to do nothing. I believe with Dr. Lazard that prostatic massage has been very greatly overdone. I have seen a case in my own experience, I am sorry to say, in which infection of the seminal vesicles and cord was directly due to prostatic massage.

Orleans Parish Medical Society Proceedings.

President, DR. AMÉDÉE GRANGER. *Secretary*, DR. C. P. HOLDERITH.
141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, *Chairman*.
DR. HOMER DUPUY and DR. S. K. SIMON.

MEETING OF NOVEMBER 28, 1909.

DISCUSSION OF DR. LEWIS'S PAPER.

DR. S. M. D. CLARK: As Dr. Lewis has very correctly said, the essential factor in treating cases of pruritus vulvæ is a thorough study of its etiology. The case reported typifies one of the intractable variety; one that for want of better classification is termed a neurosis. The method of cure applied in this case is, as a rule, the

measure of last resort. I had occasion to see this case after operation and Dr. Lewis is to be congratulated upon the perfect cosmetic results. It is striking to see what little deformity is produced, after so wide an extirpation of diseased tissue; this, I believe, is due to the exceedingly loose cellular arrangements of these parts. Dr. Hirts' ingenious idea of resecting the nerve trunks supplying this region, though never tried by me, seems to be a difficult and tedious procedure. Between the two, I would use the method adopted by Dr. Lewis.

The specimen of tuberculosis of the tubes, ovaries and endometrium presented by Dr. Lewis, is a pathological gem. I saw this case in the clinic and diagnosed intra-mural myoma, with chronic adnexa. One of the interesting symptoms of this case was amenorrhea of eleven months' standing. Although knowing that in 60% of fibroids there exists menstrual excesses, yet I feel sure a myoma existed in the fundus. At operation this interesting specimen was found; the tubes and ovaries were characteristic of the cherry type. Upon splitting the uterus, the myoma was revealed. I do not think it is possible to find a more perfect specimen of tuberculosis of the endometrium than is shown in this case.

I am convinced that a much greater number of fallopian tube infection are tubercular in character than we have any idea. Until we examine microscopically all our specimens, we will never be able to arrive at correct conclusions. Statistics show that from 5% to 10% of all infections of the tubes are tubercular in character. John Hopkins' reports show a little over 10%.

I am strongly in favor of sending, as a routine, specimens from the operating room to the pathological department.

DR. DOCK: In addition to the general causes mentioned by Dr. Lewis I would like to state the importance of myxedema as a causative agent. In mild cases of myxedema the usual symptoms may be lacking, but the therapeutic test with thyroid preparations reveals the disease.

DISCUSSION OF DR. DOCK'S PAPER.

DR. BASS: I have used the ophthalmo-reaction for the last year and a half over 150 times, and have not had any very severe reactions. I have been fortunate in seeing a number of Prof. Dock's cases and the method appeared to be as simple without danger and

probably as reliable as the ophthalmo-reaction. From my observation I believe it is time to quit the general use of the ophthalmo-reaction and use Von Pirquet's method instead. I recently tried the vaccination method, using typhoid substance in 22 cases, 18 normal and 4 typhoid. The results were universally negative. The material used was a five day old broth culture of typhoid bacilli killed with formalin 1 to 500.

DR. DUREL: The question of dosage in the use of tuberculin is of great importance. I have used tuberculin in some 200 to 300 instances, during the last years, both in tuberculous and non-tuberculous sanitarium and private cases, and think that with the Von Pirquet test the 20 to 25% dilution is preferable to the 10% dilution, on account of its giving a greater percentage of positive reactions upon the first injection, than the 10%.

I would like to know from Dr. Dock what has been his experience with tuberculin in regard to the relation of the Pirquet test to the sub-cutaneous test. With the sub-cutaneous test I have gotten positive results with 1 to 1½ milligrams of tuberculin (Kloch). I consider the local reaction which manifests itself at the point of injection as of great importance and value. This redness, swelling, tumefaction, etc., shows itself in 8 to 24 hours, and is often not followed by any rise of temperature, or any other signs of a tuberculin reaction. This local manifestation is more liable to occur when the tuberculin has been given trans-cutaneously.

One must notice the local reactions if he wishes to obtain results with tuberculin—as I have seen not later than two weeks ago—a very severe and serious reaction followed the administration of a repeated dose of tuberculin, when there had been signs of a local reaction in the arm (point of injection) following the first dose of tuberculin.

The redness, tumefaction, etc., appearing at the point of injection, I consider of practical diagnostic value in tuberculosis. The local lung reaction I also consider of importance. The evil results with tuberculin as sometimes reported, are to my opinion, due to carelessness and lack of observation, on the part of the operator; and the overlooking of the local reactions. If we are careful to observe these local reactions to tuberculin, we will not give a dose of tuberculin which will prove detrimental to our patient, and which tends to discredit the use of tuberculin by its opponents, and careless users.

DR. WEIS: I have used Moore's test and am unable to decide whether it is of value or not, some of the cases were positive clinically, but did not react, cases which, on the other hand, were positive with Calmette's reaction, and vice-versa. Beyond having seen Prof. Dock's cases of Von Pirquet I have no experience to offer.

DR. DOCK (in closing): Most observers think the cutaneous almost as accurate as the sub-cutaneous test. I agree with the speaker that the local reaction should be watched as well as the general slight reaction. Treat a few cases of lupus with a milligram of tuberculin and see what a tremendous reaction usually occurs. A like condition is likely to appear in the lung. I have used chiefly 1 mg., 5 then 10 mgs., but other amounts may be used depending upon the familiarity with the method.

DISCUSSION OF DR. WHITE'S PAPER.

DR. O'REILLY: I have listened with interest to the able paper of Dr. White and feel that nothing more of value could be added to it. All the points of interest have been carefully gone over, but I would like to discuss a method of rat destruction as recently practiced here and accounts of which were published in our daily press. I refer to use of rat virus. The City Health Board did not conduct these demonstrations; they were conducted by representatives of houses that manufacture the virus. Simpson, in his treatise on plague, states that in Cape Town and in Odessa the demonstrators who conducted the test were very successful, Danysz virus having in 60% completely destroyed them, in 15% incomplete and in 15% negative. In Odessa the representatives of Pasteur Institute claim such success that for several weeks after experiment it was not possible to find any rats. These preparations I am satisfied will give unsatisfactory results when they become commercialized. The destruction of rats by virus properly prepared, I am satisfied, will, as an accessory, prove valuable. I am satisfied that a potent freshly prepared virus would be of great assistance in the work of rat destruction. Dr. Rupert Blue conducted experiments in California and I have corresponded with him; he is familiar with our conditions, and recommends that we should rat proof first two squares of our river front and by this

means we would get a certain amount of protection if we were so unfortunate as to receive infection through shipping.

DR. DOCK: Mr. President, this is an important subject for the Society and from the situation likely to confront us it seems to me this paper should be placed where it will do the most good. No doubt we should look for plague at any time and it can be kept out, it may get in in spite of the usual precautions, as it has in Frisco and other places. If we observe the history of the disease in India we see it is a serious source of difficulty to every one and has no respect for the white man. In Japan the crusade against rats shows the impossibility of killing them all. Remove all food material and garbage and make such places as slaughter houses, grain and feed stores rat-proof and the situation will be much improved, but migratory habits of rats makes the struggle a perpetual one. I have had some personal experience with plague, having had charge of a case of pneumonic type. This is the only case I saw and the peculiar attitude of the patient was very striking. He lay on his side, with legs drawn up, a characteristic feature of the disease, as seen in some of the paintings by old Italian masters. There were physical signs of pneumonia and bacilli in the sputum and with our serum and other precautions we were saved from the plague infection.

DR. WM. M. PERKINS: I would like to ask Dr. White what would be the value of the ferret in a rat campaign?

DR. WHITE: In answer to Dr. Perkins, I will say that the ferret remedy is one of the cases in which the remedy is more of a nuisance than the disease and may even carry the flea, as does the rat. I agree with Dr. O'Reilly that if a virus could be prepared by the Board of Health and not as a commercial affair, we unquestionably would get the good results that have been obtained in the colder and drier climates. As to rat-proofing, I wish to take issue with my associate, Dr. Blue. I do not agree with him that two blocks on the water front are enough. A rat arriving on ship has no fixed habitation, and as he is a tramp and vagrant he will, if the first two blocks are rat-proof, travel another block.

DISCUSSION OF DR. BATCHELOR'S PAPER.

DR. LAZARD: Dr. Batchelor states that the average time required for him to operate on a hernia is 20 minutes and in one case 14 minutes. I believe much of the good results in his cases is due to

the time used in operating. Some teachers of surgery instruct their classes that speed is unnecessary, as it was useful prior to the anesthesia stage of surgery, when the transfixion amputations, etc., were done. This is incorrect, as speed is almost as important as it ever was. In spite of a rigid asepsis, the constant traumatism or "piddling," which shows a want of surgical decision, undermines the tissue resistance, a term yet to be finely defined, favors supuration, prolonged convalescence and possible failure; whether the operation is for hernia or amputation of the penis. In surgery, as in everything else, there is always a slow oscillation from one extreme to the other; now the fashion seems to be to keep the patient on the table for an undue length of time, to say nothing of the baneful results of prolonged general anesthesia. All things being equal, the surgeon who operates quickest will necessarily get the best results. Speedy manipulation is not inconsistent with good and effective operation. Speed and accuracy may be combined even in surgery. Dr. Batchelor is to be congratulated on his good results, as they are in line with the modern reports of all large clinics.

DR. HACKETT: While my experience in operating for radical cure of hernia has been limited, my observation has been quite extensive. Nearly every boy does the Bassini operation now, and I am convinced that it is not so much the technique of the operation as the personal technique of the *operator* that brings success. Dr. Lazard's reference to "piddling with tissues" opens a line of thought, if we consider "piddling" to mean unnecessary handling and traumatizing. Speed in operating is certainly to be desired, but not at the expense of accuracy or neatness and judgment. Of course, when we get the combination, it is very close to the ideal. What is true of hernia is true of all other work, especially abdominal, and the man who is neatest and makes careful use of instruments, tissue forceps, etc., instead of hands and fingers; who consistently avoids all unnecessary traumatism and loss of time, is the man who gets the best results. I think that to the consistent observance of the latter technique, the doctor owes his success more than to speed or the resection of the cremaster muscles. However, the combination has proved a good one and he is to be congratulated. He certainly has gotten splendid results.

DR. BATCHELOR (in closing): I agree with the first speaker

that it is not essential to the cure of hernia that the sac should be ligated above the ring, in all cases. However, I regard it as a matter of importance to ligate the sac above the ring as a routine procedure. Moreover there are certain cases of long standing, of large scrotal hernia in which the sac is enormously developed and forms a voluminous roll. In these cases it is absolutely essential that the sac should be resected.

Dr. Lazard is correct in his views on the importance of speed in operation. While I do not think that thoroughness of details should be sacrificed for speed, yet the operator of speed is usually possessed of skill, and the combination is certain to secure best results. Quickness and gentleness of manipulation in open wounds are safeguards against infection. The less manipulation of tissue the less traumatism, therefore the less liability to infection.

DR. GRANGER'S PAPER.

DR. GUTHRIE: The author is to be complimented upon his admirable model, but the disadvantages that I see would be cost and that a dark room would be required for fluoroscopic examination.

DR. PERKINS: Dr. Granger's apparatus seems to me very complete and ought to allow any desired positions of patient, tubes and operator. It is a very ingenious device. Beginners in X-ray work should not be under the impression, however, that such a complete apparatus is at all necessary for the average operator. This apparatus is designed for extensive expert work.

The Medical Staff of the Touro Infirmary.

MEETING JANUARY 8, 1909.

Present: Drs. Weis, Hatch, Conn, Lemann, Simon, Feingold, Matas, Kohlmann, Van Wart.

DR. CONN reported a case of "*Extra-Uterine Pregnancy*" with presentation of the specimen removed at the operation. The patient, a white female, aged 30, was married eight months. Two and a half months after marriage, she had one miscarriage. Two weeks prior to admission, she was taken with cramps in the abdomen with severe nausea and vomiting, which confined her to bed

for a couple of days. She had five of these attacks in all during three weeks. The attacks were only controlled by opium, and she obtained considerable relief with the passage of gas from the bowels. Examination showed a large boggy mass on the right side. This was fluctuating and painful. Rectal examination showed this mass pressed backwards. The operation showed a tubal pregnancy, which ruptured on opening the abdomen. The appendix was fixed to the tube and both were removed. The patient left the hospital twelve days after the operation with no symptoms.

DR. HATCH presented a case of "*Pott's Disease with Paraplegia.*" The family history was negative. The personal history, except for a history of alcoholism, was unimportant. The patient had had, for three years, recurring pains in the back. Three months ago, after striking the back against the edge of a table, the pains became much worse. They extended down the legs; and, at times, gave rise to a tingling sensation in the back and legs. The patient had a good deal of pain on coughing. Ten days before admission, he commenced to have a weakness in the legs. A plaster jacket had been applied previously, with no result. A plaster jacket was again applied, and, later, a second one. At first, he was somewhat worse; then he commenced to gradually improve. At the time of the application of the first jacket, he suffered from both motor and sensory paralysis. In a month's time, after the application of the second jacket, he was able to walk with assistance, and there was no disturbance other than some diminution of the temperature sensation on the outer side of the leg. He is now able to walk with simply the help of a cane.

DR. VAN WART, in discussing this, mentioned the fact that often, in adults, a paraplegia occurred in Pott's disease without the presence of deformity.

DR. HATCH mentioned several cases of *hysterical spine*, which had been previously diagnosed as tuberculosis disease.

DR. KOHLMANN reported a case of "*Implantation of Ureter in the Bladder,*" and referred to the fact that some operators believe in lifting the ureter out of its bed, and that others do not.

DR. FEINGOLD Presented:

I. A case of "*Injury to the Eye,*" produced by the explosion of a fire-cracker, showing pressure lesion of the cornea. The cornea appeared roughened on the surface like frosted glass, and had lost

its transparency. There was blood in the anterior chamber. After a few days of rest in bed, atropine instillation, and hot applications to the eye, the blood was absorbed from the anterior chamber. The corneal surface became perfectly shining and smooth, and the opacity cleared up with the exception of a small patch in the upper, outer quadrant, where a number of fine lines crossing each other in different directions in the deepest layers of the cornea could be seen under the focal illumination, indicating a wrinkling of the corneal lamellæ, and possible tear of Descemet's membrane. In this connection, the Doctor also spoke of the fact that opacities of the cornea were caused, at times, by the pressure of the forceps during delivery. In one of the Doctor's cases, a persistence of the opacity of the cornea caused a convergent strabismus of the eye under treatment. The opacity cleared up and the strabismus disappeared. He discussed the cause of these opacities, and the need of early treatment in all cases.

II. DR. FEINGOLD *demonstrated an eye ball with a piece of steel in it*, and showed some other specimens preserved in gelatin. He also spoke of a patient in the hospital, illustrating the value of conservative treatment. The patient had an attack of glaucoma from which she recovered after operation, although, owing to the bad behavior of the patient during the operation, some of the iris had healed into the wound. Later, a cataract developed on the same eye; and during the operation, the patient behaved even worse, prolapse of the vitreous occurred, and the cortical substance could not be expressed from the eye. In the wound that remained gaping for over a week, the whole sphincter portion of the iris had healed in. So, there was only light perception in the eye. Tension was subnormal, and the eye looked lost. After a short while, iridotomy was performed, giving the patient vision of 5-15, with the proper correcting glasses. At present, the patient was in the hospital with an attack of glaucoma of the other eye.

DR. MATAS presented a group of patients exhibiting the following conditions:

CASE I. *Cholelithiasis Drainage*: Mr. W. R. S. V., *aet.* 32, admitted November 20, 1908, suffering with chronic calculous cholecystitis and cholangitis. Intense jaundice; white stool; black urine. Operation November 27, 1908; modified Robson incision revealed perforated gall bladder with 5 gall stones lying in grasp of omentum which was completely adherent to gall bladder. Pus

in gall bladder; cystic duct blocked up into choledochus with soft stone; extirpation of gall bladder, incision of cystic duct into choledochus for impacted calculus with drainage, by inserting No. 15E soft catheter, into common duct; gauze drainage. Profuse drainage of bile followed. In spite of biliary drainage jaundice persisted for three weeks.

Patient expects to leave tomorrow with wound healed and small sinus remaining.

CASE II. *Choledochus Drainage*: E. G., girl, aged 12, admitted with suspected appendicitis, December 9, 1908. Distinct tumor in right hypochondrium. Exploratory incision; retrocecal appendix removed showing catarrhal lesions. Cause of patient's symptoms found in a gall bladder distended with muco-pus, *i. e.*, obliterative cholecystitis caused by single soft calculus which blocked entire cystic duct up to choledochus. Gall bladder very full, tense and thick. Cholecystectomy. On account of extension of impacted calculus to common duct, the gall bladder and cystic duct were extirpated, and the common duct drained with No. 10 soft rubber catheter which was stitched to the duct. Cigarette drain alongside of catheter. Bile drained profusely through tube and in two days slightly from side of tube. Excellent recovery. Patient on eve of discharge. In both of these cases gall bladder infections were of simple staphylococcal origin.

CASE III. *Cholecystotomy* for the removal of latent gall stones discovered in the course of abdominal exploration after removal of large bilateral cysto-fibromata of the ovaries. These masses jointly weighed nearly 8 pounds and were attached to uterus by long vascular pedicles. After the double ovariectomy, the appendix was removed and the other abdominal organs explored. Twenty typical gall stones were removed 14 days after the first operation, and the patient, Mrs. N. R., aged 43, was now presented convalescent from the last operation. The case is one of many instances that have occurred in the speaker's practice in which the systematic routine palpation of the abdominal organs in the course of a laparotomy done with a specific purpose led to the discovery of latent gall stones or other lesions which would ultimately have caused serious disturbances.

CASE IV. *Duodenal Ulcers*: He also presented two cases of duodenal ulcer operated in his service. Both patients having been recently discharged could not be presented. The first case that of Dr. J. A., aged 24, had suffered great intestinal hemorrhage over one year before operation and was now anemic and greatly emaciated. Admitted to Touro, December 18, 1908. Operated December 18, 1908. On exploration a very thick infiltrated ulcer involving 2-3 of the circumference of the duodenum beginning immediately at the duodenal edge of the pylorus. The stomach appeared perfectly normal.

Gastro-enterostomy, (posterior transmesocolic); no loop operation (Mayo), was performed with clamps and suture which created a stoma of nearly three inches near the pylorus. Marked regurgitation and bloody vomit followed which was relieved by hot bismuth-adrenalin irrigation. Patient discharged eating and drinking without pain or vomit on January 6, 1909, 19 days after the operation.

CASE V. *Gastro-Duodenal Ulcer* causing cicatricial stenosis of the pylorus. The ulcer had originally extended a considerable distance into the stomach on each side of the pylorus. The ulcerative process had ceased; scarcely granulating surface. On October 30, Finney's pyloroplasty was performed; leaving a large gastro-duodenal orifice of 3 inches width. Simultaneously with this operation an extreme retroflexion with prolapse, was corrected by shortening the round and broad ligaments on the Duhrssen-Coffey plan besides doing a prophylactic appendectomy. The patient, a young married woman, aged 28, was discharged completely healed in three weeks showing notable improvement in weight and general condition.

CASE VI. *Acute Diffuse Infectious Periostitis Involving the Entire Lower Jaw* with general and profound septic symptoms, occurring in a luetic male subject, aged 28. H. L. P., admitted December 6, 1908. The first symptoms appeared 16 days before admission. An abscess had formed below the symphysis of the jaw simulating a carbuncle of the chin. Other collections began to point in various places under the jaw requiring multiple incisions. Finally, in view of persistent rigors and high temperature (104° F.), with intense local suffering, the entire lower jaw was exposed by incision from one angle to the other; the periosteum being found thickened and detached from the bone by diffuse suppuration. For nearly two weeks the naked jaw was exposed and completely detached from the soft parts, except at the gingival margins, which still held to the teeth. Wet antiseptic packs and dressings were constantly applied. The case was further complicated by intercurrent parotitis and erysipelas. Inunctions of mercurial ointment were applied twice daily until the last week when symptoms of mercurialism presented themselves. The patient was now exhibited showing that the septic condition had been overcome and that he was progressing favorably towards convalescence. The lower jaw which had been so long exposed was now practically covered up by the normal soft parts leaving only a deep scar extending under the chin from angle to angle and a small area of bone denudation on the right side which suggested the possibility of exfoliation at this point. The teeth were all in situ, but quite loose. It was evident after looking at the long chart of this patient as well as the notes of his case, that he owed his recovery largely to his youth and vigor and to the great care and devotion with which he had been nursed.

Dr. M. recalled another case of the same kind seen with Dr. Larue four years ago in a much older man. In that instance the patient finally succumbed after prolonged struggle from sepsis exhaustion and marasmus in spite of the most active treatment culminating in the excision of the entire jaw, which was resorted to as a last expedient in the vain effort to stay the further progress of infection.

CASE VII. *Anterior Mediastinotomy and Multiple Chondrocostectomy*: T. H. B., aged 31, admitted December 17, 1908, operated December 18, 1908. A semi-fluctuating tumor, simulating a tubercular abscess in the right inframammary region, was found, on free incision, to be a soft, rapidly growing *sarcoma* necessitating resection of the 6th, 7th, 8th and 9th cartilages and ribs including also the right lower half of sternum from the 5th cartilage to the right sterno xyphoid junction. In the course of this resection the pleura was opened but the resulting pneumothorax was readily controlled by suture. The pericardium was exposed and the heart felt beating against the finger in the mediastinum. The patient was now convalescing rapidly; the large flaps adhering in position leaving only a few exposed places which are now healing by granulation.

CASE VIII. *Spontaneous Thrombosis of cavernous sinus followed by marked improvement in an aggravated pulsating exophthalmos and cirroid aneurism of 18 years standing*: The patient, M. F., aged 38, was presented at the last meeting of the Society (see this JOURNAL for December, 1908, p. 469). The possibility of spontaneous cure by this contingency if the patient survived to advanced age, was then discussed. It was not then suspected that this rare event would take place in so short a time. The patient had left the hospital in a stationary condition on November 10. He had been out of the institution only a few days when he was seized with violent headache and an enormous edema of both eyes with intense chemosis of the conjunctivæ. The lids were completely everted and the patient had sunk into the depths of despair believing that he had become blind. He was readmitted November 18, and after suffering intense agony for nearly two weeks, during which his eyes were cared for by Dr. Feingold, the conjunctival chemosis and edema of the lids gradually subsided and the pains abated. The sight, especially that of the right eye was remarkably improved and the entire aspect of the pulsating areas of the face below the eyebrow was completely changed. The throbbing ophthalmic and facial veins and their tributaries, which formerly thrilled and hummed were now still and transformed into hard fibrous cords. They had been immensely improved by this intercurrent and unexpected accident. The cause of the thrombosis is not clear but the increasing and marked arterio-sclerosis presented by this patient suggests that this may be the cause.

The following specimens (gross and microscopic) were also exhibited and demonstrated by Dr. Matas with the assistance of Drs. Caine and Cohn of the house-staff:

I. *Glandular carcinoma of the head of the pancreas involving the papilla of Vater* causing complete obstruction of the common and pancreatic ducts. The liver was slate black in color from bile stain, the gall bladder dilated and the common hepatic ducts large enough to admit the thumb. Sections through the papilla of Vater and head of pancreas show typical carcinomatous infiltration involving the duodenal mucosa which covers the papilla, incorporated in the infiltration. The patient J. N. W., aged 48, was admitted December 17, 1908, suffering with intense jaundice; white stools; black mahogany urine. The jaundice had begun last August. An ill defined deep seated tumor could be felt under the right costal arch. Temp. normal or subnormal, no pain. Blood picture presented nothing suggestive except prolonged period of coagulation. Calcium chlorid was administered regularly for a week in anticipation of hemorrhages. Exploratory incision December 20, 1908, revealed slightly enlarged liver, distended gall bladder and a marked tumor of the pancreas. An anastomosis was made between the gall bladder and the jejunum with a small Murphy button, and, in addition, the loop of jejunum was short-circuited by another small button (Jejuno-jejunostomy) with the view of diminishing the fouling of the gall bladder with intestinal contents. The distended gall bladder was at once relieved by the bile flowing into the intestine. The coagulation time at the operation was five minutes yet the hemostasis was quite satisfactory throughout. Patient stood operation remarkably well until the third day (December 23), when he began to throw up black vomit and finally pure blood. Signs of progressive internal hemorrhage followed and the patient died with all the signs of acute hemorrhage on the fourth day. At the autopsy, the colon and part of the ileum was found filled with blood which seemed to come from necrotic patches in the mucosa of the intestines especially the transverse colon, as shown in the specimen exhibited. Large hematmata and blood extravasations filled the transverse mesocolon and lesser cavity of the peritoneum. In some of the specimens of retroperitoneal fat removed with the pancreas there were evidences of necrosis. The specimens exhibited showed that the anastomoses between the gall bladder and bowel and the entero-enterostomy were firmly united and in good position. There was no peritonitis. The patient had died from intestinal and retroperitoneal extravasations caused by necrosis of the retrocolonic and peripancreatic fat, associated with billiary and pancreatic toxemia.

II. *A second specimen of carcinoma of the papilla of Vater* and of a restricted area of the head of the pancreas, was exhibited.

In this case (male, *aet.* 53) complete obstruction of the common duct and duct of Wirsung had gradually occurred causing the death of the patient from biliary and pancreatic toxemia in the course of 18 months. No operation of any kind was performed. The hepatic lesions almost duplicated those observed in the previous case though the pancreatic involvement was not as marked.

III. *Three Enteroliths Removed by Enterotomy.* (a) An almost pure cholesterin mass analyzed by Dr. Lobenhoffer, who exhibited slides showing characteristic crystals. The mass had blocked the ileum about two feet away from the ileo-cecal valve causing symptoms of chronic but progressive obstruction of the bowels in a lady aged 76 years.

The patient was discharged one month after the operation.

(b) Typical enterolith with vegetable fibronucleus, encysted in one of the larger pockets of the cecum (Right haustrum) close to the appendix. Coincidentally, the appendix was removed. The stone could be felt through the abdominal wall, and had been diagnosed before the operation as "a tumor of the cecum." The patient, a young lawyer, aged 28, was operated November 30, 1908, and discharged healed, December 14, 1908.

(c). A third enterolith not analyzed; was successfully removed last summer by Dr. W. S. Bickham from a patient admitted to the female charity service during the speaker's absence last summer.

It is curious to note that three enterotomies were performed (successfully) in the same hospital, in the course of 18 months, for the removal of intestinal concretions large enough to cause obstructive signs and intestinal disturbances.

IV. *Malignant recurrent papilloma of the bladder removed with the entire bladder leaving only the trigone with a short margin of mucosa around the internal meatus of the bladder.* The bladder was removed by the intra-peritoneal method (Mayo), and the cavity of the viscus had to be completed by duplications of peritoneum. The posterior line of sutures being reinforced by covering with the body of the uterus. The capacity of the newly formed bladder was scarcely more than one ounce. A Pezzer catheter was left *in situ*. Recovery followed but much anxiety was caused by the fact that not a drop of urine was discharged from the bladder during the *first 36 hours*. At the end of this time the patient had a chill with severe pains of both lumbar regions and a temperature of over 103° F., which rapidly subsided with the first appearance of the urine, (secreted at the rate of 18 ounces in the first twenty-four hours after its appearance).

The anuria was attributed in this case to the temporary occlusion of the ureteral orifices by traumatic edema. The patient, Mrs. G. W., aged 47, left the Infirmary on December 13, 1908, one

month after the operation, still wearing the Pezzer catheter, though the vesical capacity had shown much increase by this time.

Dr. Matas related a number of cases gathered from the literature showing that suppression of urine from ureteral obstruction had occurred in a number of cases from twelve to sixteen days with final recovery. In one instance 23 days had elapsed with total suppression from bilateral calculous occlusion before death had occurred. Presumably the internal secretion of the kidney was to be credited for the prolongation of life under these circumstances.

VI. Exhibition of the *uterus* of a patient aged 40, removed by *abdominal hysterectomy for multiple fibroids* in which the condition was complicated by the presence of *ascarides lumbricoides*, which were recognized in the jejunum while performing a systematic exploration of the abdominal contents. Operation December 16, 1908; discharged, January 6, 1909.

VI. Gross and microscopic sections of *uterus* removed by vaginal hysterectomy from patient aged 46, showing *carcinoma of cervix grafted on a polypus*. Sections made show transition type between *squamous and glandular carcinoma*.

VII. Gross and microscopic sections of a *myxo-sarcoma of the thigh* following an injury five months previous to admission. The patient, a little girl, aged 10 years, presented a very large tumor which bulged from the gluteal and post femoral regions. The tumor was well encapsulated and was of distinctly aponeurotic origin. The patient was discharged December 23, twelve days after admission with the wound healing after a very extensive resection.

VIII. Two specimens from women aged 40 and 34 years, respectively, showing congenital *cysts of the canal of Nuck* removed in the course of inguinal herniotomy.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The State Society.

The next annual meeting of the Louisiana State Medical Society is now little more than two months off. It behooves the members to make active preparations for attending, some to read papers and report cases others to listen and to discuss, all to aid with their counsel in settling problems and questions affecting the welfare of their patients, the public, and our profession.

At a special meeting, called recently for this purpose, a House of Delegates was created and for the first time in this State the experiment will be tried of having the Society divided into a business body and a scientific one. It is hoped by this means to have more time for the uninterrupted consideration of scientific papers and a better opportunity for the disposal of everything on the program. Owing to the comparatively small number who attend from each parish outside of Orleans and two or three others in which large towns are situated, only a fair trial will show whether a truly representative attendance can be secured in one branch without detracting from interest in the other.

The Chairmen have not a whit too much time to organize their sections and secure material adequate to ensure the scientific success of the meeting.

We know that the local committee of arrangements is interested and will see that everything is done for the comfort and entertainment of the visiting members. It will not be easy to keep up the pace set at the Alexandria meeting by the Rapides Parish Society and the local Society must look to its laurels.

Let every member determine from now on to do his share in his particular sphere as far as opportunity may permit and results undreamed of will be achieved, redounding to the benefit of the Society in general and each member in particular.

Deserved Recognition.

The President of the French Republic has recently conferred upon Mr. Louis Bazy, a Paris Hospital interne, the decoration of the Legion of Honor. The interne was assisting his chief at an operation for empyema. During its performance some pus was projected in the eye of the interne who, having no one at hand to take his place, quietly stuck to his post and gave the necessary attention to the eye only after the termination of the operation. Notwithstanding careful treatment and, following upon several months of intense suffering, it became necessary to enucleate the eye.

Learning of the facts, of his own initiative the President of France created young Bazy a Knight of the Legion of Honor. This action has been received with enthusiasm by the medical profession of France and we believe that analogous recognition on the part of governments or communities are rare enough to make this one noteworthy. President Fallieres is to be congratulated as much as the one upon whom he has so worthily conferred the Honor.

Hospital Promotions.

The period of service of Dr. J. M. Batchelor having about expired, the former first assistant, Dr. Joseph A. Danna, was promoted to the position of chief resident surgeon of the Charity Hospital at the last meeting of the Board of Administrators. Dr. Stephen W. Stafford, the second assistant, was promoted, also, and made first assistant. Dr. J. Clifton Cole was, at the same time, elected second assistant resident surgeon.

We deem the promotion of Dr. Danna and Dr. Stafford of sufficient importance to treat otherwise than as a news item alone, as we believe that it is not simply a recognition of efficient services but, especially, of the principle that promotion can be expected after faithful services have been rendered to the State institution for a stated time. Nothing can more encourage able and energetic young men to strive for these positions than if they feel that tenure of office, and especially promotion, is not due chiefly to political influence. We still hope that some day the Honorable Board will see fit to carry out their intention, as announced at one time, to

fill the lowest place after competitive examination and the higher ones by promotion.

Dr. Danna now has the opportunity not only to show his ability and skill in a larger field but, at the same time, he and his assistants can bring about a more cordial relationship between the visiting staff and the resident staff of the Hospital. They should cultivate a spirit of fairness to and co-operation with the visiting surgeons and physicians who, we feel sure, would be glad to meet them more than half way.

The National Association of Retail Druggists.

We are in receipt of a most interesting circular from the National Association of Retail Druggists announcing the desire of that body to co-operate with physicians in establishing the Pharmacopeia and the National Formulary as guides to practice in prescribing or dispensing drugs and prescriptions. We are glad to notice any effort on the part of the druggists to help the physician and we consider that an honest effort to prevent the prescribing of proprietary medicines of unknown or doubtful ingredients is highly commendable.

We are, however, compelled to be a little suspicious and more skeptical of the motives of our friends who openly denounce proprietary medicines when the physician prescribes and then use all the means they possess to sell these, as well as all other patent nostrums of their own and other makes, direct to the patient and over the counter, *without* the prescription of the physician.

A list of druggists who profess the new "code" in New Orleans has been sent us with the circular we have referred to. Some of these flagrantly advertise in their windows and in the newspapers that they pander to the ignorant or perverted public, in open competition with the physician, and actually in the face of the law.

We of the medical profession are growing wise in experiences with the drugstore and it will be a long time before we may be convinced of the reformed apothecary. When he placards his front window with a sign which states "we sell no patent medicines here; we do no counter prescribing; we prefer to be honest to

being suspected; we are co-operating with the physician in making pharmacy dignified," then, and then only will the medical profession begin to believe. But so long as the average drug clerk is educated to dispense the shop specialties for headaches, coughs, dysentery and kidney ills, and a host of other complaints, we must look askance at any formulated pretense to a collection of virtues with which a prostituted trade attempts to patch a much disfigured character. Begin the reform among yourselves, gentlemen, and when you are ready to show us clean shelves, which means clean practises, we shall be more than willing to think of your profession as a true handmaiden to our own.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

[NEXT MEETING, NEW ORLEANS, MAY 4, 5, 6, 1909.]

CHAIRMEN OF SECTIONS FOR 1909 MEETING.

The President has appointed the following Chairmen of Sections for the coming meeting of the Society, May 4-6, 1909:

Practice of Medicine—Dr. Allan C. Eustis, Abbeville.

Surgery and Anatomy—Dr. J. C. Willis, Shreveport.

Obstetrics and Gynecology—Dr. Espy M. Williams, Patterson.

Ophthalmology—Dr. V. C. Smith, New Orleans.

Laryngology, Otology and Rhinology—Dr. R. F. Harrell, Alexandria.

Diseases of Children—Dr. W. W. Butterworth, New Orleans.

Pathology and Physiology—Dr. Gustav Mann, New Orleans.

Nervous and Mental Diseases—Dr. P. E. Archinard, New Orleans.

Cutaneous Medicine and Surgery—Dr. H. E. Menage, New Orleans.

Hygiene and Sanitary Science—Dr. R. O. Simmons, Alexandria.

Members wishing to read papers at the coming session are urged to send in titles of their articles at once. It is the desire of the Committee on Scientific Work to have all titles of contri-

butions in and program completed thirty days before the date of meeting. Address Chairman of Section under which paper is to be read, or the Secretary of the Society.

IMPORTANT NOTICE TO PARISH SECRETARIES.

The attention of Secretary-Treasurers of Parish Medical Societies is earnestly called to the provisions of the By-Laws of the State Society which provide that dues for the current year must be in the hands of the Treasurer of the State Society **THIRTY DAYS PRIOR TO EACH ANNUAL MEETING.**

The annual session this year begins earlier than usual, May 4. All dues should therefore be sent not later than April 4. If Parish Secretary-Treasurers will live up to this requirement, it will greatly facilitate the work of the State Treasurer's office.

MEETING OF THE BIENVILLE PARISH MEDICAL SOCIETY.

The regular quarterly meeting of the Bienville Parish Medical Society was held January 19, 1909, with Dr. O. O. Hamner, President, in the Chair, and the following members present: Drs. Hamner, Neil, Wilson, Thornhill, Colvin, Atkinson, Pennington, Durham, Culpepper and Singleton. Minutes of previous meeting corrected and adopted. The following officers were elected to serve during 1909: President, Dr. C. C. Allums, of Ringgold; Vice-President, Dr. George F. Wilson, of Bienville; Secretary-Treasurer, Dr. F. R. Singleton, of Arcadia. The Program Committee, Drs. Neil, Wilson and Singleton, reported the following program for the next meeting: A paper by Dr. F. M. Thornhill; "Strangulated Hernia," by Dr. C. C. Allums; "Burns," Dr. E. O. Edgerton; "Lacerated Perineums," by Dr. O. F. Matthews; "Puerperal Eclampsia," by Dr. O. O. Hamner. The members were then entertained by Dr. Atkinson, who read an interesting paper on "Children," which was discussed by Drs. Neil, Pennington, Thornhill, Colvin, Wilson and Durham. Following this paper were the reports of two cases of pneumonia, which provoked much discussion and brought out many interesting points. The next meeting of the Society will be held on the second Tuesday in April, at Arcadia.—F. R. SINGLETON, M. D., Secretary.

SPECIAL MEETING TO ESTABLISH A HOUSE OF DELEGATES.

At a Special Meeting of the Louisiana State Medical Society, held at New Orleans, February 20, 1909, the following amendments to the REGULATIONS of the Society, as proposed by the Committee to Establish a House of Delegates, were adopted:

We recommend that the Society be divided into two bodies—a Scientific Body and a House of Delegates. All the business of the Society, whether legislative or pertaining to the running of the Society, shall be transacted by the House of Delegates. The Scientific Work of the Society, including scientific papers, reports and discussions, shall be carried on by the Scientific Body.

The House of Delegates shall be the legislative body of the Society and shall consist of: (1) Delegates elected by the Competent Parish or District Societies; (2) the Councillors; and (3), ex-officio President and Secretary of this Society.

Each component unit of the Society, whether a Parish, Bi-Parish or District Society—provided such Bi-Parish or District Society be composed of parishes not able to organize—shall have one delegate if composed of less than twenty-five members, and one additional delegate for every twenty-five additional members or fraction thereof.

No one shall serve as a member of the House of Delegates who has not been a member of a component Society or of the Louisiana State Medical Society for two years.

Members of the House of Delegates shall be elected for a term of two years and affiliated Societies entitled to more than one representative are requested so to elect their representatives that one-half, as near as may be, shall be elected each year.

Every delegate from an affiliated Society, before being permitted to take part in the proceedings of the House of Delegates, must deposit with the Secretary of the State Society, or with other designated officer or committee, a certificate signed by the President and Secretary of his constituent Society, stating that he has been regularly and legally elected or appointed a delegate to the Louisiana State Medical Society for a definitely stated term; and the said constituent Society must be in good standing.

Order of Business.—The following shall be the order of business, unless otherwise ordered:

1. Call to Order by the President.
2. Roll Call.
3. Reading and adopting the minutes.
4. Reports of Officers.
5. Reports of Committees.
6. Unfinished Business.
7. New Business.

No new business shall be introduced into the House of Delegates on the third day of the Annual Session, unless with unanimous consent; and such new business, whether in the form of a Resolution, Memorial, or otherwise, shall require an unanimous vote for final action.

The House of Delegates shall be governed by Robert's Rules of Order, when not in conflict with the Constitution and By-Laws of this Society.

Twenty-one (21) voting members of the House of Delegates shall constitute a quorum for the transaction of business.

Meetings of the House of Delegates—Regular Sessions.—The House of Delegates shall meet annually, on the day of the opening of, and at the same place, as the Annual Session of the Society. It shall determine

when sessions of the House of Delegates shall be held during the meeting of the Society.

Special Sessions.—Special sessions of the House of Delegates shall be called by the President on written request of fifteen delegates, by mailing a written or printed notice to the last known address of each delegate, at least thirty (30) days before such special session is to be held, in which shall be specified the time and place of meeting and in general terms the object of such special session, and no other business shall be transacted thereat.

Referendum.—The Society, as a whole, shall have the right, by a two-thirds vote of the members registered, to call up and consider any matter in possession of the House of Delegates, whether already determined or still under consideration, but no business or legislative matter shall be brought up for primary consideration in the general body. Any such matter may be introduced in this body, but must be at once without discussion referred to the House of Delegates.

The House of Delegates shall report finally to the Society immediately following the reading of the minutes on the morning of the third day of meeting. Respectfully submitted, as amended:

COMMITTEE TO ORGANIZE HOUSE OF DELEGATES,

Dr. F. W. Parham, Chairman; Dr. A. C. King, Dr. C. J. Landfried, Dr. J. C. Willis, Dr. C. J. Gremillion.

It was the expressed sense of the Society that these amendments go into immediate effect. Officers of component Societies are therefore requested to take steps toward appointing delegates at once, in order to be represented in the duly accredited manner at the next meeting of the Society in May.

Medical News Items.

MEETING OF THE CALCASIEU PARISH MEDICAL SOCIETY.—The Calcasieu Parish Medical Society met on February 4 and had a goodly attendance. Several interesting and well-prepared papers were read after which the meeting adjourned to Ringmaiden's Cafe, where a supper was served.

THE INTERNATIONAL LEPROSY CONGRESS.—The International Leprosy Congress will meet in Bergen, Norway, this year. The United States representative at the Congress will be Dr. Wm. J. Goodhue, who, for the last four years, has been resident physician at the Leper Settlement in Molokai, Hawaii.

UNIVERSITY OF PENNSYLVANIA.—The Medical Department of the University of Pennsylvania has arranged for its annual "home coming week," or "progressive medicine week," to occupy the Easter vacation period, a series of clinics, laboratory demonstrations, and other interesting proceedings, for the particular benefit

of the alumni, many of whom will themselves take an active part in the exercises. The idea is excellent, and the occasion may be expected to draw a number of graduates together in Philadelphia.

CHARITY WARD AT THE BATON ROUGE SANITARIUM.—Realization of a charity ward in the Baton Rouge Sanitarium is a matter of an early date.

A DEPARTMENT OF PUBLIC HEALTH FOR CUBA.—The young Cuban republic, having been safely nursed through its recent attack of eruptive fever, comes out with a fully developed executive department of public health.

THE NOBEL PRIZES.—The Nobel prize in medicine has this year been divided between Professor Elie Metchnikoff, assistant director of the Pasteur Institute, Paris, and Professor Paul Ehrlich, director for the Institute for Experimental Therapeutics at Frankfort-on-Main. The Nobel prize in chemistry has been awarded to Professor E. Rutherford, F. R. S., director of the Physics Laboratory in the University of Manchester. The prize in physics has been awarded to Professor Gabriel Lippman, Professor of Physics at the Sorbonne, Paris.

TUTMONDA ESPERANTA KURACISTO ASOCIO.—Such is the title of the Universal Esperanto Association for physicians organized at Dresden in 1908. Consuls have been appointed in various parts of the world and Dr. Kenneth W. Millican, at No. 1143 Sheridan Road, Chicago, is the representative in the United States.

The Association publishes a monthly organ, the *Bocho de Kuracistoz*. The subscription price has been fixed at \$1.00. Any information concerning the publication and the Association may be had by addressing the above named consul.

THE AMERICAN SOCIETY OF TROPICAL MEDICINE.—For the meeting announced for this Society an exceptional program has been provided, including articles by Dr. Calmette, of Lille, and Drs. V. G. Heiser, of Manila; C. W. Stiles, of Washington; John M. Swan, of Philadelphia, and a group of others including Drs. George Dock and C. C. Bass, of New Orleans. (

THE INDIANAPOLIS MEDICAL JOURNAL.—This new Journal has arisen from the combination of the *Indiana Medical Journal* and the *Central States Medical Monitor*.

THE AMERICAN ACADEMY OF MEDICINE is to meet at the Auditorium in Chicago on Thursday, March 25. The object of this meeting is to consider the nature of entrance requirements to med-

ical colleges in their relation to college courses; the possibility of combining medical college subjects in the academic college curriculum; the consideration of advanced standing in medical colleges and what should constitute the conditions which permit this; the requirements for graduation from a medical college in other terms than those of time, etc.

THE LOUISIANA BOARD OF PHARMACY HELD ITS QUARTERLY EXAMINATION on February 5 and 6. The following were successful for registered pharmacists: L. F. Mitchell, G. O. Grass, O. L. Holloway, E. B. Tamps, A. D. Lehmann, E. M. Nelson, H. C. Thomas, J. M. Montgomery, G. J. Comeaux, F. J. Rollian, L. C. Suss, A. V. Gremillion, J. S. Cohen, G. E. Awcock and A. L. Frank. Successful for Qualified Assistants—O. A. Dupont, F. B. Camois, L. J. Necalle, B. F. Levy, C. Keppler, S. D. Stuart, and W. B. Black. The Examining Committee is composed of William M. Levy, Chairman; Adam Wirth and C. D. Sauvinet.

THE TEXAS STATE MEDICAL ASSOCIATION meets at Galveston on May 11, 12 and 13.

HOMEOPATHY AT TEXAS SCHOOL.—A bill is before the State Legislature to instruct the Board of Regents of the State University to provide for the instruction in Homeopathy at the Medical Department of the University of Texas, located in Galveston.

TEXAS GRADUATES EXEMPT FROM STATE BOARD EXAMINATIONS.—A bill has been introduced in the House and Senate in the Texas Legislature to amend the Medical Practice Act by exempting graduates of the Medical Department of the University of Texas from appearing before the Board of Examiners for license; exemption for graduates of pharmacy of this school is also provided.

PERSONALS.—Dr. E. L. Marechal, the founder of the *Mobile Medical and Surgical Journal* is no longer connected with that Journal.

Dr. S. I. Colvin was elected Mayor of Gibsland, La., on February 14, to succeed Mr. W. H. Lazarus who resigned. Dr. A. J. Pennington was elected a member of the Executive Committee at the same time.

Dr. P. T. Talbot was appointed city pure food inspector by Dr. Harvey Dillon, president of the State Board of Health. He will also act as assistant to Dr. Hamilton Jones, the State Chemist.

Dr. James P. Warbasse, formerly editor of the *New York State Medical Journal*, has joined the editorial staff of the *American Journal of Surgery*.

Dr. I. T. Rand, of New Iberia, was appointed a member of the Board of Directors of the Southwestern Louisiana Industrial Institute at Lafayette.

REMOVALS.—Dr. C. B. Harrington has moved from Wilmot, Arkansas, to Pollock, La.

Dr. L. A. Pennington from Jacoby, La., to Opelousas.

Dr. H. B. Wren from Collierville, Tenn., to Muskogee, Okla.

Dr. S. F. Nave from Shiner, Texas, to Kenedy, Texas.

Dr. J. D. Calhoun from Marksville, La., to Rayville.

Dr. R. H. Gullede from Shreveport, La., to Mooringsport.

Dr. T. S. Norwood from Torras, La., to Norwood.

Dr. B. L. Bailey from New Verda, La., to Magda.

Dr. I. B. Mars from Daingerfield, Texas, to Newcastle.

Dr. J. B. Cummins from Wyatt, La., to Fort Worth, Texas.

Dr. M. R. McAlpin from Pitkin, La., to Maryville.

MARRIED.—At Greensburg, La., January 24, Dr. A. R. Carter and Miss Lillie Hutchinson.

On February 4, 1909, Dr. L. A. Young and Miss Edwina Habana, both of St. Charles Parish.

DIED.—At Ama, La., January 29, 1909, Dr. N. B. Stevens, at the age of sixty-two.

At Manague, Nicaragua, on January 24, 1909, Dr. L. S. Anderson, of Moss Point, Miss.

Dr. Smith Gordon died at his home on Bayou Rapides on January 26, 1909, in his seventy-sixth year. The Rapides Parish Medical Society on February 1st, memorialized the demise by a set of resolutions highly extolling the departed for his character, loyalty and physical and moral courage.

TULANE NOTES.

The Extension Course announces five lectures illustrated by lantern slides and three practical demonstrations beginning April 5, by Dr. C. W. Stiles, of the U. S. P. H. and M. H. Service, dealing with "*Certain Southern Anemias, Their Cause and Prevention.*"

As these lectures are to be given by the recognized expert on hookworm disease and other sub-tropical diseases, the attention of the profession is called to the same as the lectures will be not only for students in the Medical Department but for all physicians who may be interested. Special cards for these lectures may be had at the Dean's office at the Hutchinson Memorial and the profession would be welcomed. The opportunity of this particular instruction under the tutelage of so distinguished an authority does not come every day.

For March the following lectures are announced in this course, also open to the general profession: March 3, Major George G. Earl, "*Water Supply and the Disposal of Refuse*"; March 10, 17 and 24, Professor Charles W. Duval on the "*Value of Modern Laboratory Tests in the Early Diagnosis of Certain Infectious Diseases*." These lectures will include methods of examination of tuberculosis, gonococcus, influenza, typhoid fever, dysentery, scarlet fever, meningitis, etc.

In the week beginning March 29, Dr. F. Creighton Wellman, of the Bureau of Entomology, will deliver a course of six lectures on South Africa, from the naturalist's standpoint, and on South African diseases, etc.

FOUNDERS' DAY will be on March 6. On March 5 the several departments of Tulane will declare a holiday to observe memorial exercises in honor of the late Mrs. Tilton, one of the benefactors of the University and the founder of the magnificent library on the Tulane Campus. On the night of March 5 the annual meeting of the Alumni Association will be held. On the 6th the ceremonies of Founders' Day will take place, distinguished this year by the presence of President Eliot of Harvard. The culminating event will be the gathering of the Tulane Clan at the annual Alumni banquet to be given at the Hotel Denechaud.

Professor Wm. B. Smith, of Tulane University, was a delegate to the Pan-American Scientific Congress, held at Santiago in February.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Medical Gynecology, by SAMUEL WYLLIS BANDLER, M. D. With Original Illustrations. W. B. Saunders Co., Philadelphia and London, 1908.

It is a healthy sign of the present tendencies in gynecology to see the appearance of this work. The author has endeavored to present just what the name implies, a book for the physician engaged in general practice who lacks just that special knowledge which may be required in diagnosis and treatment. He has pointed out the value of conservative treatment and emphasized the relation of normal and pathologic genital functions to the general physical and psychic health of woman.

The practitioner will find the chapters on massage, artificial hyperemia, anemia, pessaries and hydrotherapy of extreme value.

The subject of gonorrhea is particularly well arranged. The author is well known for some former researches upon this subject, and this chapter reflects the work of a careful clinician and pathologist. There is much to be learned from the chapter on the diagnosis of carcinoma. The author acknowledges the credit due Winter for his splendid efforts in arousing the public, and the physician, to his duties in instigating an early search for malignant disease.

The work is not profusely illustrated, but great care has been shown in selecting useful illustrations, most of which are original.

The arrangement of the text is excellent. There can hardly be any doubt but that Dr. Bandler's book will be generously received and appreciated by the profession.

MILLER.

Gonorrhea in Women, by PALMER FINDLEY, M. D. C. V. Mosby Medical Book and Publishing Co., St. Louis, Mo, 1908

This is a book of 112 pages in which the subject of gonorrhea is thoroughly reviewed and conveniently classified. The author states that nowhere in the English or American literature can be found the subject presented in its entirety. He has endeavored to compile the best in our possession and present the views of the best workers in this field. Where possible he has quoted the authorities verbatim.

The special feature of the book is the convenient classification. Every phase of this protean disease is presented in a concise form and the work is concluded with an extensive bibliography. Anyone desiring the latest resumé on this subject will find Dr. Findley's work most satisfactory.

MILLER.

Osler's Modern Medicine, Vol. IV. Lea & Febiger, Philadelphia and New York.

This volume is the most attractive of the four we have seen, so far, as it deals with the newest problems, namely, Diseases of the Blood, of the Spleen, Thymus and Lymph-glands.

We notice that no special attention was given to primary tuberculosis splenomegaly, which should be differentiated from the other forms of large spleens and hydatid cysts.

E. M. D.

The Practice of Medicine, by FREDERICK TAYLOR, M. D., F. R. C. P. 8th Edition. P. Blakiston's Son & Co., Philadelphia.

Comparing this manual with others, we find it is by far a much superior one. Within the scope of a manual, it brings information fully up to date; just to cite an example, it says of Heart-Block or Stokes-Adams Diseases in its latest light, enough to post the general practitioner.
E. M. D.

Vaccine Therapy and Opsonic Treatment, by R. W. ALLEN, M. D., B. S. (Lord). P. Blakiston's Son & Co., Philadelphia.

In the author's own words, so prominent a place is this method of treatment now assuming in medical and surgical practice, that the collection of all the facts on the subject scattered in the literature must prove most useful. It did actually prove so, for this is the second edition of the work, and while much of the principles and methods are now included in text-books on Practice, a special monograph like this one before us is much better.
E. M. D.

International Clinics, Vol. II. Eighteenth Series, 1908. Philadelphia and London. J. B. Lippincott Co., 1908.

This volume of the *Clinics* maintains the high level established by its predecessors. We cannot summarize the contents of such a publication, but we may single out a few of the articles that will interest the progressive physician. The treatment of syphilis by atoxyl is particularly timely; the treatment of hemoglobinuric fevers will appeal with especial force to Southern physicians, while the pathology of malignant disease possesses a permanent interest for all practitioners of medicine.
McSHANE.

International Clinics, Vol. III. Eighteenth Series J. B. Lippincott Co., 1908.

As usual, this invaluable publication presents a number of first-class papers. We notice among others, because of its bearing on a common and yet indefinite condition, the one entitled "Considerations as to the Nature of Hysteria," etc., by Dr. Tom A. Williams, Washington, D. C. The pathology of appendicitis by Dr. Richard Kretz, is also a notable feature of the present volume.
E. M. D.

Essentials of Dietetics in Health and Disease, by AMY ELIZABETH POPE and MARY L. CARPENTER. G. P. Putnam's Sons, New York.

We commend the *Essentials of Dietetics* to the trained nurse who, too often, lacks exact knowledge in this most important branch of her calling. Physicians will find contained herein information which will often assist in formulating dietaries.
STORCK.

Golden Rules of Dietetics, by A. L. BENEDICT, A. M., M. D. C. V. Mosby, St. Louis.

It is a pleasure to read such a common-sense treatise on the subject of dietetics as that offered by Dr. Benedict. As yet, this important branch of medical practice has not received at the hands of practitioners the attention which its value merits.
STORCK.

The Cure of Consumption, With Subcutaneous Injections of Oils, by THOMAS BASSETT KEYS, M. D.

For our part, we do not think that Dr. Bassett has proved his assertion that subcutaneous injections of oils cure tuberculosis. We shall

continue to feed our patients fat by the mouth; and when that is impossible, shall employ it by means of innunciations. STORCK.

The National Standard Dispensatory. Second Edition. Thoroughly Revised and Much Enlarged. By H. A. HARE, B. Sc. *Phar. D.*; CHARLES CASPARI, *Phar. D.*; and HENRY RUSBY, M. D. Lea & Feibiger, Philadelphia.

This well-known book is now before us in its second edition. To the physician and pharmacist who have not already made its acquaintance, we say: "Do so, at once."

The scope of the work is encyclopædic in character, and to those who aim to be progressive in medicine and in pharmacy, this work is almost indispensable.

This second edition shows careful revision, and about two hundred new articles have been introduced.

The complete Pure Food and Drugs Act and Regulations, together with the official discussions necessary to their interpretation, have been appended.

In the department of pharmacology, Dr. Rusby, in his usual careful manner, has covered the minor drugs, as well as those of greater importance. Presiding over the pharmaceutical section, Dr. Caspari has given full information regarding methods and products, with lucid descriptions and explanations of the most approved apparatus and tests.

That well-known therapist, Dr. Hare, presents in a compact form, devoid of historical and theoretical matter, the practical application of drugs.

The articles on inorganic chemistry were prepared by the accomplished Daniel Basc, Ph. D.; and Edward Krenners, Ph. D., wrote the section on the volatile oils and their constituents. The organic chemicals are treated by Joseph F. Geisler, Ph. C.

Dr. E. M. Houghton, the well-known authority on physiological-testing, wrote the articles on vaccine, antitoxins, opsonic theory and bacterial vaccines, thyreoidectin, toxins (mixed) of erysipelas and bacillus prodigiosus (Coley), tuberculins, and the various sera.

We have merely skimmed over the many points of interest contained in this most excellent book—a monument to its authors.

The purchaser of this book will find much use for it, and can be assured that the information obtained therefrom is the best. STORCK.

Influences of Food Preservatives and Artificial Colors on Digestion and Health. Bulletin No. 84, Part IV.

This bulletin, issued by the United States Department of Agriculture, deals with benzoic acid and benzoates.

However one may feel regarding the advisability of using these substances as food preservatives, one is compelled to admit, after careful perusal of Dr. Wiley's experiments as here recorded, that their effects on the human economy after continuous use, even in small doses, is such that strict supervision should be maintained over their use as food preservatives. STORCK.

A Compound of Pharmacy, by F. E. STEWART, M. D., Ph. G. P. Blakiston's Son & Co., Philadelphia.

For the purpose of self-review and for a "quiz," the student of pharmacy will find this little book convenient. STORCK.

Manual of Clinical Chemistry, by A. E. AUSTIN, A. B., M. D. D. C. Heath & Co., Boston.

After a careful examination of this manual, it is our opinion that Dr. Austin has given the student and practitioner a simple and reliable work, intended solely for the study of medical chemistry, and adapted to the needs of practical medicine.

STORCK.

Publications Received.

LIPPINCOTT. Philadelphia and London.

Retinitis Pigmentosa, With an Analysis of Seventeen Cases Occurring in Deaf-Mutes, by Wm. T. Shoemaker, M. D. Laboratory Examination of the Blood and Urine, by John M. Swan, M. D.

Diseases of the Nose, Throat and Ear, by Francis R. Packard, M. D.

Diseases of the Digestive Canal (Oesophagus, Stomach and Intestines,) by Paul Cohnheim, M. D., from the Second German Edition, Edited and Translated, by Dudley Fulton, M. D.

D. APPLETON & COMPANY. New York and London, 1909.

Orthopedic Surgery for Practitioners, by Henry Ling Taylor, M. D., assisted by Chas. Ogilvy, M. D., Fred H. Albee, M. D.

MISCELLANEOUS:

The Present Status of the Leprosy Problem in Hawaii; (2) The Reaction of Lepers to Moro's "Percutaneous" Test; (3) A Note Upon the Possibility of the Mosquito Acting in the Transmission of Leprosy, by Walter R. Brinckerhoff, S. B., M. D., (Washington Government Printing Office, 1908).

Eighth Annual Report of the New York State Hospital for the Care of Crippled and Deformed Children. (J. B. Lyon Co., Printers, Albany, 1909).

The Treatment of Tuberculous, Para-Tuberculous and Consumptive Affections, by Geo. Petit, M. D.

Seven-hundred Surgical Suggestions, by Walter M. Brickner, B. S., M. D., Eli Moschowitz, A. B., M. D., and Harold M. Hays, M. A., M. D. (Surgery Publishing Company, New York, 1909).

Blood Examinations in Surgical Diagnosis, by Ira S. Wile, M. S., M. D. (Surgery Publishing Company, New York, 1909).

Backbone Hints for the Prevention of Jelly Spine Curvature and Mental Squint.

A Straight Up Antidote for the Blues and a Straight-Ahead Sure Cure for Grouch, by S. De Witt Clough. (Collected from various sources).

Some Random Thoughts and Reflections on the Methods and Use of State Boards of Medical Examiners and Their Relations to Medical Education and Students to the State and Its People, by P. C. Remondino, M. D. (Frye & Smith, publishers, San Diego, Cal., 1908).

La Tuberculose Renale, Par le Eugene Saint-Jacques, M. D.

Reprints.

Medical Education. Incipient Amyotrophic Lateral Sclerosis, with Recovery. Wear and Care of the Nervous System. The Influence of the Ductless Gland Over Metabolism. A Fifth Case of Family Periodic Paralysis, by Leo. M. Crafts, B. L., M. D.

Operative Treatment of Internal Hemorrhoids, Including a Consideration of the After Treatment as Well as the Sequelae Which Occasionally Ensnue. Rectal Diseases. A Report of Three Cases—Condyloma, Lipoma and Foreign Body, by Lewis H. Adler, M. D.

The Care of Consumption, With Subcutaneous Injections of Oils, by Thomas Bassett Keyes, M. D.

Ophthalmology for General Practitioners, by Leartus Connor, A. M., M. D.

Transitory Disturbances of Consciousness in Epileptics. The Meniere Simplon-Complex, by S. P. Goodhart, M. D.

Elements of Decay in American Civilization, by F. E. Daniel, M. D.

How Immunity From Yellow Fever May Possibly Be Acquired, by E. H. Randle, A. M., LL. D.

Treatment of Typhoid Fever Perforation, by J. D. S. Davis, M. D., LL. D.

Snapshots From Latin America; (2) Partial Thyroidectomy Combined with Roentgen Treatment in Basedow's Disease; (3) Roosa Und Die Arzthiche Fortbildung; (4) The Roentgen Method in the Surgery of the Chest; (5) The Renal Origin of Vesical Calculi, With Observations On Calcareous Tumors of the Bladder; (6) Ueber Kombination Sbehandlung bei bosartigen Neubildungen; (7) Die Robert Koch-Feier in New York, (8) Malunion of Bones; by Carl Beck, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR JANUARY, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	11		11
Intermittent Fever (Malarial Cachexia)			
Smallpox.....			
Measles.....		1	1
Scarlet Fever.....			
Whooping Cough.....	2		2
Diphtheria and Croup.....	3		3
Influenza.....	6	3	9
Cholera Nostras.....			
Pyemia and Septicemia.....	3	1	4
Tuberculosis.....	48	30	78
Cancer.....	15	3	18
Rheumatism and Gout.....		1	1
Diabetes.....	2	1	3
Alcoholism.....	2		2
Encephalitis and Meningitis.....	5	2	7
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	17	8	25
Paralysis.....	2	3	5
Convulsions of Infants.....	2	1	3
Other Diseases of Infancy.....	32	14	46
Tetanus.....	1	5	6
Other Nervous Diseases.....	1		1
Heart Diseases.....	77	30	107
Bronchitis.....	7	7	14
Pneumonia and Broncho-Pneumonia.....	35	34	69
Other Respiratory Diseases.....	2	5	7
Ulcer of Stomach.....			
Other Diseases of the Stomach.....	2	3	5
Diarrhea, Dysentery and Enteritis.....	30	13	43
Hernia, Intestinal Obstruction.....	3		3
Cirrhosis of Liver.....	12	5	17
Other Diseases of the Liver.....	4	1	5
Simple Peritonitis.....		1	1
Appendicitis.....	1	1	2
Bright's Disease.....	31	21	52
Other Genito-Urinary Diseases.....	6	3	9
Puerperal Diseases.....	7	3	10
Senile Debility.....	19	9	28
Suicide.....	3		3
Injuries.....	14	12	26
All Other Causes.....	31	10	41
TOTAL.....	426	231	657

Still-born Children—White, 20; colored, 17; total, 37.

Population of City (estimated)—White, 265,000; colored, 97,000: total, 362,000.

Death Rate per 1000 per annum for Month—White, 19.29; colored, 28.58; total, 21.78.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.17
Mean temperature 58.
Total precipitation 3.72 inches.
Prevailing direction of wind, north.

New Orleans Medical and Surgical Journal.

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APRIL, 1909.

No. 10

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Where Was The Coin?*

By DR. O. JOACHIM, New Orleans.

A little girl, three years old, was brought to my office with a history that the child had swallowed or aspirated a coin—a five-cent piece—ten days previous. This happened while out walking, and the mother stated that the child had a severe coughing and choking spell. Subsequently, the child had at times little trouble in swallowing and occasionally a little cough. At the office the child appeared so well, playful and free from symptoms, that I doubted the presence of a coin in the upper digestive or respiratory tract. The mother stated that she had examined the feces carefully and was sure that no coin had passed. To settle any doubt in the matter, I advised the taking of an X-ray picture, of which we obtained a front and a lateral view, which are here for your inspection. You will see in these excellent plates the presence of a substance about the size of a nickel, a little above

*Reported before Orleans Parish Medical Society, January 23, 1909.

the sternal depression. The lateral view shows the edge of the coin a little in front of the vertebral bodies, while the face view shows the entire foreign body. These pictures were made by one of our eminent radiographists, and he interpreted the position of the coin to be in the esophagus. The child was also seen by another eminent radiographist, and a lateral fluoroscopic inspection showed, with the head extended backward, the position of the coin to be almost under the skin, the coin tilting forward. I saw the case with him and we took the coin to be located in the trachea. The plates were seen by two of our eminent surgeons, and a similar difference of opinions developed. One inclined to the opinion that it was in the esophagus, with a reservation that it might be in the trachea; the other thought it to be most probably in the trachea. I advised to withhold all instrumental interference until we were in a position to remove it instrumentally wherever it might be. Under anesthesia, we first introduced an esophageal bougie and found no obstruction. A coin lifter was subsequently used and traversed the esophagus up and down without obstruction. Finding no coin in the upper digestive tract, I made a low tracheotomy and inspected the trachea with a tracheoscope. We had a beautifully clear view of the bifurcation and it was interesting to see the exudation of mucus from the left bronchus; but we saw no coin. The wound was sewed up, the tracheal tube being removed after twenty-four hours, and the child made a very rapid and uneventful recovery. On the second day thereafter the child passed the coin, to the relief of all.

It is hardly necessary to state that the coin must have been in the esophagus, and that, due to the relaxation caused by the anesthetic, we must have pushed it down at the first introduction of the esophageal bougie.

I relate this case to you principally because of the absence of local and general symptoms and to be able to show you these exceptionally beautiful plates; and further to elucidate the difficulty we may meet with in reading skiagraphs and the differences which might be observed as between fluoroscopic observation and the results as shown by the plate.

The Nervous and Mental Effects of Masturbation.*

By E. M. HUMMEL, M. D., New Orleans.

There is probably no subject about which so much uncertainty and misinformation obtains, even in the medical mind, as that of the influence of unnatural sexual practices upon the nervous health. For the most part the picture has been overdrawn, and several rather special reasons are to be assigned for this. Those whose duty it is to moralize have the established custom of threatening vice with punishment, and in the present instance many fantastic pictures have been drawn of the hopeless nervous diseases caused by this reprehensible but not necessarily health destroying practice. When it falls to the lot of the medical man to advise on these points he unconsciously adopts the same expedient: lectures and makes extravagant threats. Masturbation has, then, figured partly as a sin, partly as a breach of the rules of health. As a sin, punishment therefor has been reckoned in terms of disease and bodily ruin.

The writer believes that while masturbation is to the largest extent a moral derilection, it is most distinctly the province of the physician to apply the treatment, obviously because that, though it is a breach of morals, it is abuse or perversion of a body function; and for the reason that the physician is or should be best informed on matters of deranged physiology. Again the sexual sphere is an exceedingly sensitive complex, complicating deeply the feelings and emotions. When a sexual question is discussed it is easy to enlist attention. Curiosity to know about sex subjects is great, and wherever there is curiosity there is strong interest. Then, again, for reasons unnecessary to explain here, it seems that people do more morbid thinking on sex matters than all others combined—unless it be their health. Religious exponents, realizing the immense evil of unrestrained sexual desire, have always been disposed to battle with this instinct as an unmitigated sin. And to a certain extent rightly so perhaps, as we probably owe our present degree of social purity largely to the influence of religion. Religious tenets have therefore jumped on this side issue in the sex question with both feet, and in collaboration with medical men, a sort of little special hell has been devised for this class of sinners. Quack doctors,

*Read before Orleans Parish Medical Society, January 23, 1909.

realizing this easy means of reaching victims, have smeared their printed matter with lurid details of the evil effects that threaten those who do not come to them for treatment, knowing full well that the majority of school boys have masturbated or had a bitter fight with the tendency, and that after subduing themselves into cessation of the habit, have always had misgivings about the harm they did themselves, and carry about with them a sort of latent phobia on the question.

The disinclination on the part of regular medical men to deal with the subject has permitted these extravagant ideas to prevail to a large extent.

Some profit therefore can be derived from a clean, candid discussion of the subject.

While taking the history of nervous and mental cases in clinical work the writer has for some time made it a practice, where tact would admit of such questions, to enquire into sexual practices and proclivities, and the answers seem to indicate that a large majority of boys masturbate during childhood, at puberty or during adolescence. As to the female sex, information is less easily gotten; but I am convinced that very many girls indulge the same habit. This is rather an astounding discovery to make, and sets us wondering why it is so. To begin with, I would like to direct attention to the sexual apparatus proper. The glans penis in the male and the nymphæ in the female are equipped with sensitive touch corpuscles subserving a special form of sensation. In the child, before sexual feelings and capacities have developed, before it is possible for the mind to entertain sexual pictures, friction or titilation of these specialized spots of mucous membrane may, if the child be inordinately sensitive or neurotic, call forth a pleasurable sensation. With cloths rubbing the parts, with its hands free, with the parts often irritated by the confined moisture of urine, and perhaps with the assistance of an objectionable nurse, it doesn't seem so strange that children in their swaddling clothes frequently find this sensitive spot, and take up the burden of a sin long thought to be limited to boys and girls old enough to have their sexual eyes open. This form of masturbation seems to cause little mischief, however, as no orgasm is aroused and the nervous system is not seriously perturbed thereby. If the child's hands are kept away from

the genitals a short time, it forgets the practice. The fact that neurotic and defective children are specially prone to this indulgence has given rise to the assumption that the nervous or mental deficiency sometimes noticed was an effect, whereas it is rather a cause.

When the child begins to take on adult characteristics, when affinities for the opposite sex begin to dawn in consciousness, in other words, when the desires and capacities for sexual activity have developed, the sexual impulse comes into consciousness with a bound; and the ardent youth begins to have his longings. Congress with the other sex is rather remote yet. From timidity and from moral precepts which have been instilled into him he abstains from approaching even a public woman. The remoteness of matrimony from the time at which procreative instincts begin to assert themselves seems to constitute a sort of disharmony between human nature and the social regulations imposed upon us. In the meantime the young adult sleeps in soft beds and in heated rooms, over eats, is more or less idle, is gifted with a vivid imagination, and has his two upper extremities dangling free at his sides, not to mention the example of his companions and the many suggestive sights in his environment. Those who weep over the situation should bear in mind such practical considerations. I merely mention these facts to emphasize the fact that most boys contract this habit sometime in their career, and inasmuch as we find no uniform neurotic or psychopathic consequences, it strengthens the conviction that masturbation is responsible for few grave nervous disturbances.

As to the relative prevalence of the practice in the two sexes, it is thought that those of the male sex are the greatest offenders. Definite information as to the prevalence of masturbation in girls is rather meager if answers to questions are depended upon. However, various suggestive facts are known which lead us to believe that the number of girls who know the vice is nearly as large as that of the boys. At this juncture I may say that it has occurred to me that masturbation in the female is rather a different affair from what it is in the male, even as the sexual impulse is different respectively in the two sexes. The writer for a while had charge of the female wards of a hospital for mental diseases. During that time several nurses of mature age and

good judgment were instructed to keep close surveillance over a number of patients suspected to be masturbators. The result was that nearly every one of those suspected were masturbators, and that they all practiced the vice by one method—i. e., by applying friction to the nymphae. By way of reproof several of them were spoken to frankly and occasion was taken to gain some information as to the psychology of the act. Answers to questions seemed to indicate that while some female masturbators employ a mental sex picture, others do not; and that in the latter case the act is naught else than a species of pleasurable tickling, like that seen in children. This seemed to be the case with those who had not had natural sexual experience. Those who admitted using an imaginary lascivious picture stated that they experienced an orgasm resembling that incidental to natural intercourse. In none of the instances were any marked nervous or mental symptoms attributable to the practice noticeable. However, the influence on the character and personality was observed, as they all had certain characteristics in common. The most of them had no countenance, were furtive and solitary, were untidy in person, and showed other signs of the moral degradation into which their habit had reduced them. This series of observations led me to draw the inferences, (1) that masturbation in the female is practically without effect in the causation of nervous diseases proper, and (2) that peripheral sex sensation is centralized in the nymphae and mucosa about the introitus, and not in the clitoris, as is commonly thought. It is true the the clitoris is the analogue of the glans penis, but, like other analogous structures existing in the opposite sex from the one in which they have functional importance, it is merely a vestige of useless tissue, with no more function than the nipple in the male.

In the male it is safe to assume that orgasm induced by masturbation is more of a shock to the central nervous system than that of the natural sexual congress, and that it implies a greater commotion than the similar episode in the female. In the case of masturbation it seems that a higher climax of nervous erethism occurs than is required to produce orgasm in congress with the other sex. There is therefore a greater expenditure of nervous energy, with a consequent greater reaction of depression. Even

then, unless the practice is carried to great excess or practiced moderately for a long time, no lasting consequences are likely to ensue. It seems rather likely that a portion of the mischief of the practice is brought about by the remorse and shame the boy feels about it and the fright and apprehension over the consequences. And here I may digress a moment to suggest that it is an unwise expedient, in attempting to prevail upon the youth to discontinue the practice, to frighten him with imaginary dire consequences and lasting ruin, for by so doing we add to one of the really damaging factors. Rather is it best to treat the matter more lightly, but at the same time appeal to the self-respect; impress the boy with the fact that his conduct is unmanly and degrading, something of which he might be heartily ashamed; that he is abusing a sacred function to the detriment of his better moral self, and that it is in his wilful power to quit it and be rid of its demoralizing effects as soon as he has set himself against it.

If continued for a long time the practice may be influential in producing impotence or aversion for natural sexual relations. But I believe that more cases of functional impotence occur as a result of an overwhelming conviction that has settled upon upon the patient that he has damaged his procreative powers or some hypochondriacal notion of impotency than are produced by direct influence of the vice on the nerve centers. Patients with functional impotence resulting from a psychic attitude are the ones who contract aversions for the opposite sex, who are exceedingly whimsical in their tendencies, and who find it easy to defeat the consummation of normal intercourse by the obtrusion of some fastidious notion of disgust.

I have gone over my notes of clinical cases and noted those in which masturbation was frankly admitted (in some instances the information was furnished by others observing the patient), and in which it can be accepted without cavil that the habit has been practiced some time in the life of the patient. In rather few instances did it seem to have anything to do with the trouble for which the patient came; and I am quite satisfied that if that many perfectly healthy people had been tactfully questioned a like number of confessions would have been gotten. Neverthe-

less, I submit the data for what it may mean. Patients with the following nervous and mental diseases figured in the ensemble:

Major hysteria, 1 (female).

General paresis, 1 (male).

Epilepsy, 2 (both male).

Alcoholic psychosis, 3 (all males).

Paranoia, 1 (male).

Paranoidal dementia precox, 1 (male).

Imbecility, 4 (3 males and 1 female).

Sexual neurasthenia, 3 (all males).

Sexual hypochondria, 11 (all males).

Simple neurasthenia, 1 (male).

Hystero-neurasthenia, 2 (both females).

Psychasthenia, 1 (male).

Grave neurasthenia, 2 (both males).

Tabes, 1 (male).

Myelitis, lumbar, 1 (male).

Occupation neurosis, for writing, 1 (male).

Now the only cases in which the practice seemed to have any causative influence were the hypochondriacal and those partaking of the nature of neurasthenia. This is so, I believe, because it is an exhaustive process and in this respect only is it really contributory in the genesis of nervous affections.

From the foregoing the following conclusions seem justifiable:

(1.) That the masturbation of young children is merely a form of specialized tickling without true or major sexual excitement, and practically without morbid results. The habit being most readily acquired by previously neurotic children, cause is often mistaken for effect.

(2.) That the same practice in the adult female partakes usually somewhat of the nature of that of children, as the deeper sexual emotions do not seem to be enlisted in the act. But in some women masturbation is a deeply sexual affair, however. In instances of excessive indulgence certain alterations in the affective character are observed, such as aversion toward the male sex, inability to experience natural libido, morbid fondness for solitude, sensitiveness about matters of sex and a tendency to attach a sexual significance to irrelevant things, loss of countenance, etc. Sometimes a neurasthenic state with irritable heart and a fear of dying is observed as a consequence of this habit in women.

(3). That in the male normal sexual indulgence as well as masturbation implies a higher pitch of erethism and a greater expenditure of nervous energy. The climax of excitation in masturbation is higher than in normal intercourse, and for this reason more of an insult to the cerebro-spinal centers. Excessive venery is harmful to nervous health and incompatible with a high order of mental capacity. Masturbators suffer like consequences to a greater extent. Again, psycho-neurotic subjects are the only ones likely to carry this vice to such excess as to excite a distinct nervous syndrome. Often in the early stages of a psychosis the subject is observed to take up masturbation, but I am inclined to look upon this rather as a symptom. A temperamentally nervous patient can reduce himself to a lower depth of nervous inefficiency by the vice or induce a state of mild dementia.

(4). Masturbation, then, may most properly be assigned as a sole exciting cause of some neurasthenic states, certain perversions of normal sexual inclination with more or less functional impotence, and reductions in character tone. The most profound nervous or mental result ever observed by the author as a consequence of masturbation was a profoundly neurasthenic and psychasthenic state with light dementia, in which the patient was so debilitated that he easily succumbed to a trifling intercurrent malady.

Removal of the Gasserian Ganglion; Report of a Case.*

By DR. CARROLL W. ALLEN, New Orleans.

Warren, *aet* 34, farmer. Entered Ward 9, October 12, 1908. The following history was obtained with some difficulty, as the patient was suffering much pain, made worse by any effort at talking:

Eighteen years ago he was kicked by a horse over right malar prominence. Some months later he began to have severe shooting pains in right super-maxillary region, later extending to inferior maxilla. At first pains were intermittent and bearable, but later grew much worse and almost continuous. The pain, as described, was limited to the areas of distribution of the superior and inferior maxillary divisions of the fifth nerve. Within the

*Read before Orleans Parish Medical Society, January 23, 1909.

last three years patient has had three injections and resection operations performed on the peripheral branches of the affected nerves. At one of these operations the inferior dental nerve was resected and its canal plugged with lead. This shows plainly in a skiagraph, which was taken with a view of determining, if possible, any injury to the malar bone from the horse kick, which immediately preceded his trouble. But a study of the skiagraph shows nothing abnormal, except the lead plug.

Following each of the above peripheral operations, there was complete cessation of all pain for periods varying from six to nine months, when the pain would return worse than it had been before operation. At present patient is fairly frantic, says his mind seems a blank, he cannot think and believes he will become insane. He claims that he frequently goes without sleep for a week at a time, when he becomes dazed and does not know what he is doing. The pain then seems numbed and he can get a few hours sleep, to wake again to his agony.

Operation October 16, assisted by Dr. Marion Souchon and Messrs. Gill, Lafferty and Hand, of the hospital staff, with chloroform anesthesia and the patient almost in a sitting position. A crescentic incision was made through the soft parts down to the bone, commencing just above the ear and terminating near the zygomatic process of the malar bone. This flap was peeled down to the zygomatic arch, all bleeding points secured and ligated. The temporal bone was then trephined and with the rongeur an opening was made, about two inches long by an inch and a half high, its base extending down to the floor of the middle fossa of the skull. Proceeding along the floor of the skull, the dura was peeled up and the brain raised, until the foramen spinosum was reached, when the middle meningeal artery was ligated and divided. Proceeding further with finger and blunt dissector and raising the dura, the foramen ovale was next encountered and slightly anterior and internal to it the foramen rotundum. With the foramina well in view, the second and third divisions of the fifth nerve were hooked up and secured with forceps and divided at the respective foramina. The stumps of the nerves were then put slightly on the stretch, to facilitate the isolation of the ganglion, which was dissected free from the dura and raised from its bed at the tip of the petrous position of the temporal

bone. When freed it was drawn slightly outward, to better define its ophthalmic division, then with curved scissors its outer two-thirds was cut away, running well up into the root of the nerve.

Great care was taken not to injure the ophthalmic nerve, as well as the other nerves and vessels entering the sphenoidal fissure, all of which could be seen and some recognized from their positions. Other structures which could be seen and felt with the finger were the cavernous sinus and internal carotid artery as it enters the skull.

The principal difficulty encountered was from hemorrhage. Blood welled up at every step and often completely filled the wound, the least separation of the dura from the skull bringing forth a new gush; it was, however, always easily arrested, the slightest pressure serving to control it, and it would not recur again from these same points, but always, as we advanced, from fresh separations. Nearly as much time was consumed in controlling hemorrhage as in the other steps of the operation.

There was very little oozing when the operation was completed. The only ligature used was on the middle meningeal. The brain and dura, which had been held up by the handle of a straight retractor, was now permitted to descend. The flap of soft tissue was sutured back in place. A small drainage tube was passed through an opening in the lower part of the flap into the skull. A suitable dressing was then applied, including the right eye.

The patient was put to bed in a sitting position, with an ice bag to his head. His condition was very good, showing very little shock. He was awake in half an hour, said he felt well and had no pain. The next morning he said that he had slept better than he had in eighteen years.

His early progress was uneventful and satisfactory. On the third day the dressings were changed and the drainage tube removed. The wound was clean.

He said the side of the face felt dead. Upon being tested anesthesia was complete, only in areas; elsewhere, it was partial over the region of distribution of the divided nerves. The action of the levator palpebræ was impaired and he could elevate the right lid only with difficulty. Sensation about the lids and eye was not affected. Temperature normal.

Fourth day. The outer canthus of eye congested, but not painful. Sensation remained normal.

The congestion about the conjunctiva increased and by the seventh day had involved the entire eye. On the eighth day the cornea became slightly opaque, sight, which had been unaffected up to this time, now became blurred.

Dr. Feingold was called in to assume charge of the care of the eye.

Seventh day. There was slight temperature, 100 deg. F., which up to this time had been normal. The wound was dressed and several stitch abscesses found. These were drained and the temperature dropped. During this time patient always said he felt well, had no pain or discomfort and wanted to get out of bed.

Ninth day. Infection spreading in skin wound, which was opened and drained.

Eleventh day. Eye clearing up, but cornea still cloudy. Skin wound cleaner.

Twelfth day. Patient up, feeling well. Eye better; can see large objects.

Fifteenth day. Deserted without warning. Eye better, but cornea still cloudy and needing attention. Skin wound still discharging a large amount of pus.

A Comparative Study of the Blood Culture and Agglutination Test in Typhoid.*

PRELIMINARY REPORT

(From the Laboratory of Clinical Medicine, Tulane Medical Department.)

By RANDOLPH LYONS, M. D., New Orleans.

The importance of an early diagnosis in typhoid fever cannot be overestimated, either as regards the welfare of the patient or the community at large. In the first instance, the sooner typhoid treatment is instituted the better the chances of the patient; not to mention the relief of a settled diagnosis to the family and the physician. In the second place, the sooner ade-

*Read before Orleans Parish Medical Society, January 23, 1909.

quate precautions are observed with the excreta from the patient and with the patient himself, the less the danger of spreading the infection to others, for Conradi has shown that of 88 cases of so-called "contact cases" the infection occurred in 53% (of the cases) during the first week.

Since Eberth discovered the bacillus in 1880 and Gaffky in 1884 isolated the organism from the spleen of a dead case and grew it upon artificial media for the first time, the literature upon the bacteriology of the disease has been extremely full and especially is this true of blood culture methods during the past ten years after its isolation from the blood of a typhoid case by Castellani in 1889. He obtained positive results in 78% of his cases, using large amounts of bouillon. In 1896 Widal inaugurated his blood test for typhoid based upon the observations of Gruber, Durham, Pfeiffer and others. This was a great step forward in the diagnosis of the disease, as the agglutination test was found to be positive in 95% and over in all cases. Its only drawback being that the test was infrequently positive before the eighth day, and often not before the third or fourth week and even convalescence.

Owing to the fact that the bacillus has been isolated from rose spots, sweat, urine and feces, attempts have been made to utilize them in hopes of arriving at an early bacteriological diagnosis, without, however, much success. They are said to be present in the urine in 25% of cases, though, unfortunately, rarely appearing before the third week. As regards the stools¹ the percentage differs widely according to the observers and media used.

In general, it might be said, that the isolation of the bacillus from stools may be of value in certain cases, and especially is this true in regard to so-called "typhoid carriers."²

Conradi in 1906 described a medium for the cultivation of the bacillus, which consisted of ox-gall, peptone and glycerin. With this medium he isolated the organism in 50% of 56 cases. The blood, however, was obtained from the ear by means of a pipette. During this year Kaiser claimed as good results with pure ox-bile. He reported 200 cases, with the following results:

Week.	No. of cases.	Percentage of positive cultures.
First	52 (5 of these	
	paratyphoids)	91 (paratyphoid negative)
Second	92	57
Third and 4th.	56	40
<hr/>		<hr/>
Total	200	65

Coleman and Buxton³ obtained positive results in twenty-four typhoid cases with Conradi's medium. The examinations were made from the fifth to the twenty-first day.

Epstein⁵ in 1908 reported 122 cases, of which 86 gave positive cultures, or 70.5%. Widal's were positive in 72.1%.

In the first week 88.5% of the cultures were positive and Widal's positive in 28.5%. In the second week the percentage of positive cultures was 88.6%; Widal's 63.5%. After this the percentage of cultures decreased, while the Widal's increased. A fact which all the statistics seem to show, viz: that the blood cultures and Widal's run in inverse ratio to one another, the cultures being most often positive early in the disease and the Widal later. This would seem to be easily explained in view of Conradi's assertion that the bacillus may be isolated from apparently healthy individuals. Epstein employed a large number of media in making his cultures, with a view of finding which were the most favorable for the isolation of the organism from the blood. His conclusions are that the best results are obtained by the use of a 2% glucose bouillon, 2% glucose-agar and ammonium oxalate solution .2%, then plain bouillon; the percentage of positive cultures with them being respectively 81%, 80%, 92% and 75%.

With Conradi and Kaiser's media his cultures were positive in 57% and 58.6%, respectively. It must be noted, however, that these last two media were not used in the beginning of the series, and the number of cultures taken with them less than half as numerous as the above, with the exception of the ammonium-oxalate solution.

As this is but a preliminary report, the number of blood cultures is comparatively small, but sufficient to arrive at some more or less definite conclusions.

The total number of typhoid blood cultures taken was 30, including one paratyphoid case.

Week.	No. of Cultures.	Cultures. Positive.	Per centage
1st	6	4	66.6
2nd	12	11	91.6
3rd	5	5	100.
4th and on.....	7	5	71.4
<hr/>			
Total.....	30	25	83.3

An analysis of the Widal's shows that during

WIDAL'S.

Week.	No. of	Widal's Positive.	Per centage.
1st	6	1	16.6
2nd	13	7	63.8
3rd	15	12	80.
4th and on.....	6	5	83.3
<hr/>			
Total.....	40	25	62.5

It will be noted from the above analysis that the percentage of blood cultures compares favorably with the previous statistics, though the Widal percentages are somewhat lower; the relationship between the two is the same as those previously seen. In 22 cases in which the blood culture and Widal were taken at the same time the culture was the means of making the diagnosis in 11 or 50%, and the Widal was positive before the cultures in 4 cases or 16%. The Widal was positive and cultures negative in 2 cases or 9.9 %. In the paratyphoid case the organism was isolated from the blood on the eighth day of the disease, and it was not until the 27th day that a positive agglutination test was obtained with a paratyphoid strain, though 3 were made. In a number of cases it was necessary to make as many as 5 and 6 Widal's before obtaining positive results, though in the vast majority of these cases one blood culture was sufficient to make the diagnosis—a fact that well illustrates the amount of labor and time which may be uselessly expended in depending wholly upon the agglutination test except for scientific purposes. It occasionally happens also that a Widal will be positive in conditions other than typhoid. One such positive Widal occurred among the 95 performed in the laboratory, and proved a few

days later to be one of estivo-autumnal malaria. My positive Widal was confirmed by a positive agglutination test made by the hospital on the same date. Two days later the Widal was suggestive, but negative, and, after 5 days, absolutely negative. The blood culture, however, taken on the date of the positive Widal and again 2 days later, both gave negative results. That various strains of typhoid bacilli may react differently is well known and was demonstrated in one case of this series in which I obtained a positive agglutination test and blood culture, but repeated Widal's by the hospital all proved negative; the diagnosis was, however, confirmed by the patient's being operated upon for a perforation, from which he died within 24 hours. Recently Becker and Ruhland⁶ report a case of epidemic cerebro-spinal meningitis in which the agglutination test was positive, and give references to similar results in the same diseases by others. Peabody, in his series, mentions one case of pneumonia with a positive Widal. The literature contains many instances of this kind which tend to show that a positive Widal, *per se*, is not an infallible test; and a negative Widal of but slight significance.

In but two cases of this series was it necessary to take a second blood culture before obtaining the bacillus; nevertheless, the diagnosis of typhoid should not be discarded from the failure of a single, or even two, blood cultures, particularly in view of the fact that the invasion of the blood by the bacillus has been shown to be uneven in character and represents, according to Coleman and Buxton, an overflow of bacilli from the lymphopoetic organs. These observers conclude that the bacillus finds its way from the alimentary tract into the lymphatic system, including the spleen, where it develops chiefly, and from which it invades the blood stream. The bacillus is in the blood throughout the disease, though it is doubtful whether it multiplies there, the symptoms being caused by the destruction of the bacilli in the blood, with liberation of their endotoxins and consequent reaction on the part of the host.

In making the cultures I used 3 bile tubes, 1 bouillon flask and 1 litmus milk flask. In the first two-thirds of the cases both Conradi and Kaiser's media were used at the same time, and I could see but little choice between them, although in two cases positive growths were obtained in the modified bile (Conradi), and not in the pure ox-bile. This, however, may have been due to the

fact that in those cases two tubes of modified bile had been employed to one of the pure. Either pig or ox-bile may be used, although ox-gall is more convenient, as one bladder will equal a dozen pig bladders in quantity of fluid. The bile is kept on ice for 24 hours. At the end of this time considerable sediment will have gravitated to the bottom of the vessel; the clear supernatant fluid is decanted off, distributed into test tubes and sterilized. In making the modified bile, before sterilizing, simply add to every 90 c. c. of bile 10 c. c. of glycerin and 2 gms. of peptone. (Conradi's original medium contained 10 gms. of peptone.) The bile media will last for many months if protected from dust and kept in a cool place. Bouillon I have found a valuable medium, and have obtained the typhoid organism from it in two cases where the bile tubes and milk flasks were negative. I have also seen the organism obtained from the milk alone. In the paratyphoid case the bacillus was obtained from the blood culture in the bouillon flask alone, but was found in the bile culture from the ear, which was taken at the same time as the blood culture. I have frequently seen one bile tube positive when the other two were negative; these discrepancies would lead us to agree with Epstein that up to a certain degree the media exert but little influence on the result of the culture. The bacilli will grow on any medium, provided such a medium is not actually antagonistic.

In view of the facility with which an ear culture may be obtained, I have made it a routine to take one at the same time as the blood culture, in order to compare the two. Conradi, who was the first to try this procedure, obtained positive results, as previously stated, in 50% of 56 cases. Peabody⁷ gives the following analysis of 82 cases in the Massachusetts General Hospital. It was the means of establishing the diagnosis in 55 of the 82 cases. In 28% of the cases the culture gave the diagnosis before the Widal:

Week.	No. of Cases.	Percentage of Positive Culture.
1st	17	100
2nd	37	70.2
3rd and 4th.....	28	42.8
	<hr/> 82	<hr/> 71.

Peabody states: "The results are similar to those obtained in larger series of cases in which the old method of taking a greater amount of blood from a vein has been used." Evidently he considers the ear culture preferable to the blood culture for typhoid, in spite of the fact that Conradi, who was the first to use the ear culture, believed the best method was to take it from a vein. My slight experience with it has been that it is not as reliable as the blood culture. In making my ear cultures I followed Peabody's directions. The lobe of the ear is cleansed with alcohol and sterile gauze, and the blood squeezed out, drop by drop, into 5 c. c. of sterile ox gall; not over 2 c. c. of blood should be taken. In the first 16 cases I used ox gall, then changed to Conradi's medium in hopes of decreasing the number of contaminations. Total number of ear cultures taken 32; in the first 16 cases with pure bile there were 50% of contamination; in the last 16, with the modified bile, contaminations amounted to the same number; it is fortunate, however, that when there is a positive growth the contaminations are infrequent. In 16 typhoid cases the ear cultures were controlled by blood cultures, with results that the ear cultures were positive in 11 of the 16 cases, or 68.75%, whereas the blood cultures were positive in 14 of the 16, or 87.5%. Ear cultures (as well as blood cultures) were then incubated for 24 hours (12 hours, however, are sufficient); then transferred to agar slants, or if a more rapid growth is desired blood to serum. A motile bacillus may be found in the fluid of condensation after six hours—it is not usually an easy matter to see the bacillus in the bile.

All cultures were further identified by their cultural characteristics and staining.

Based upon the observations of Müller and Gräf in 1906, Fornet⁸ devised a simple method of utilizing the clot from the Widal tubes, sent into him for agglutination tests. After first employing the serum for the Widal, he plants the clot in bile, and incubates for 24 hours. He obtained positive results in 14 of 19 typhoid cases, or 73.6%.

I have of late taken up this method, with the exception that with it and the previous cultures I used Conradi's method in hopes of reducing the number of contaminations as the glycerine tends to limit the growth of saprophytes. Of six known typhoid cases the clot culture, if we may so call it, was positive in four cases,

or 66.6%. Total number of clot cultures taken 14, of which half were contaminated.

CONCLUSIONS:

1. The work on blood cultures done in this laboratory and the results of others show that the blood culture is the most reliable means of making an early diagnosis in typhoid.

2. If, for some reason, it is impracticable to take a blood culture an ear culture should be done, as its value has been well proved, and it unquestionably comes next to the blood culture in importance.

3. If the above methods are not possible, as when blood is sent into a laboratory for the agglutination test, it is highly advisable after using the serum for the Widal, and especially if it be negative, to try Fornet's clot culture, as the chances of making a diagnosis will be considerably increased; and since an early diagnosis in this disease is so important, no methods, which appear to be of value, should be left untried.

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DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DRS. CARROL W. ALLEN and C. C. BASS, of New Orleans; read a paper entitled:

An Unusual Case of Infection of Genito-Urinary Tract, Apparently not Amenable to Vaccine Treatment.

DR. BASS: When I saw this case the urine was loaded with pus and shreds which were made up largely of a large, coarse bacillus

resembling somewhat the proteus bacillus. I isolated the organism and made a vaccine of it. Something went wrong with the slides on which the first opsonic index was made, and when he returned the next day to give treatment as promised, it was decided to give him a minimum dose without opsonic control. He was given five millions, which is one-half the minimum dose as set by Wright for any bacterium I know of. His opsonic index was taken at the same time, but was not finished until he had been given the vaccine and left the laboratory. When it was examined, to our surprise there was no phagocytosis. I did not see him again, but learned that he had had a violent inflammation in the parts previously affected, beginning the next day after the treatment, and was in bed twenty-eight days as a consequence.

Whether his severe accentuation of the condition was due to the vaccine I am not prepared to say, but it looked like it was. I later infected the bladder of a female rabbit with the same organism, and when she had acute cystitis I gave her two thousand millions of the same vaccine. There was no apparent increase of the symptoms.

Though there is a possibility, and I think great probability, that the trouble was not due to the vaccine, I think the case is sufficient warning to be careful of autogenous vaccines made from unidentified bacteria and especially if they are not susceptible to phagocytosis.

DR. ALLEN: J. B., German-American, *aet* 34; habits good; never had any sickness of consequence. He had gonorrhea fourteen years ago, duration about six months, apparently having a severe attack, but without any complications that he was aware of. Eighteen months later, having been apparently perfectly well in the meantime, he was married. Three and one-half years from the time that he had the gonorrhea, and after his wife had given birth to one healthy child and was seven months pregnant the second time, he was attacked without any apparent cause by a violent cystitis, with probably prostatitis and seminal vesiculitis associated. He was very sick, remaining in bed eight months. The urine was cloudy and had to be voided at frequent intervals with much tenesmus. Pains in back, hypo-gastrium, perineum and thighs were very severe. Defecation was painful. After he had been in bed six months a pronounced swelling occurred, in the left iliac region, associated with an increase in all his pains; the swelling

after persisting some time suddenly disappeared, followed by large evacuations of pus from the bladder and rectum; this gave some relief from the pain; the discharges of pus continuing for some time. He remained in bed about two months following the escape of this pus; when he did get up he could remain on his feet but a short time at first, owing to the pain any movement produced in the affected parts. He slowly improved, but was still suffering much pain and discomfort when he was first seen by me, during December, 1906, and the above history elicited. At this time urinations were about four times at night and every two hours by day. Examination: First and second urine both very cloudy. S. G. 1012, slightly acid.

By rectum the prostate and seminal vesicles are felt irregularly nodular and surrounded by a mass of fibrous tissue very sensitive to the touch; upon massage very little could be expressed from them.

Cystoscopy shows the neck of the bladder much inflamed and contracted with irregular areas of intense congestion; the right ureteral opening is much inflamed and is seen to discharge cloudy urine.

Microscopical examination of urine shows pus, epithelium and tissue detritus; no gonococci found in the urine or in the pus from the prostate.

His treatment, which has been irregular, has consisted of urinary antiseptics by mouth, vesical irrigations, massage and hot rectal douches, with occasional instillations of silver nitrate to the neck of the bladder. Under this regime he improved very much, but was still far from well and with much to be desired. I discussed operation, advising vesical drainage, with removal of the prostate and seminal vesicles. This, however, did not appeal to him and it was subsequently decided to try opsonic treatment; accordingly Dr. Bass was consulted. At this time his condition was about as follows: His nightly urinations had dropped from four or five to once and sometimes twice. Pain at urination much less; he was able to keep on his feet for about an hour at a time and do some little work. His general condition had improved and he had gained in weight. He was injected with vaccine by Dr. Bass July 19, 1907; reaction very severe; by the third day patient was unable to stand; temperature 102°, urination very frequent with great tenesmus; urine milky, containing a flocculent material re-

sembling mucus, with much detritus from the bladder. He was confined to bed for five weeks, and his sufferings controlled by soothing and antiseptic irrigations, with urinary sedatives and antiseptics by mouth. Hot rectal irrigations and sitz baths were used with benefit.

August 22, able to be up for one hour and able to hold urine for four hours. From this time he has slowly improved, until at this writing he is slightly better than before the vaccine was used.

This case is not reported for the purpose of recording a failure, although we may learn much even from failures, and this case teaches its lesson and illustrates one of the intractable inflammations of this region and affords an opportunity for the discussion of the opsonic reactions of one of the organisms capable of invading the genito-urinary tract.

Although no gonococci had been found, but another organism, which Dr. Bass will discuss, the case is clinically that of a very stubborn chronic gonorrheal cystitis, with involvement of the adnexa. It is probable that his early gonorrhea left a latent focus, or he may have had a colon bacillus, or simple pyogenic infection, which was excited into what must have been a prostatic abscess during his first seizure, which was left to rupture by his medical attendant. Had this abscess been treated surgically at the time it would most probably have modified his subsequent sufferings or possibly permitted a more rapid and permanent recovery.

His condition is now fairly satisfactory and he is able to keep steadily at work, rarely suffering any discomfort beyond getting up once or twice at nights to urinate. His prostate, seminal vesicles and neck of the bladder seem permanently diseased. What long treatment, with a quiet, regular, temperate life on his part and the healing effects of time will accomplish towards restoring him to a normal condition remains to be seen.

The most promising procedure would seem to me to be the removal of the diseased prostate and seminal vesicles with long continued bladder drainage, probably best carried out in a continuous bath.

DR. CHARLES CHASSAIGNAC, of New Orleans, read a paper entitled:

Antigonococcic Serum.

For several years the discovery of a serum curative or preventive

of gonorrhea has been the dream and the hope of those whose experience with this disease has been sufficient to teach them both the importance and the difficulties of its complete cure.

Nothing promising developed until over two years ago, when Drs. Rogers and Torrey* made a preliminary announcement of their work in this line. This served at least to arouse attention. The result of their further investigations in the Department of Experimental Pathology of the Cornell University and their experimental treatment of cases as presented to the American Association of Pathologists and Bacteriologists a year ago† were decidedly encouraging and seemed ample to justify continued tests of the serum on a larger scale.

At this time the work was turned over to the Department of Experimental Medicine of a well-known firm of manufacturing chemists and biologists*, and by them I was requested over six months ago to assist in determining how much value there might be in this antigonococcic serum. I consented on condition that I would make clinical tests only, as I had neither the time nor the technical skill to make elaborate bacteriologic studies, and, besides, these were already being undertaken by others more competent. For a full description of the preparation of the serum, the two articles already mentioned may be consulted. It will suffice here to say that culture of the three principal groups which have been found in the gonococcic family are inoculated in sheep intra-peritoneally; for the first two inoculations the cultures are heated to 65° C. during a half hour; for the others, unheated cultures are used, and after a total of nine or ten the serum is tested and is collected if found satisfactory.

The serum was not found efficacious by Rogers and Torrey in the treatment of acute infections of the urethra, vagina, or conjunctiva. They give as a probable explanation "the fact that many of the infecting micro-organisms are not reached by the serum circulating in the blood." Be that as it may, I have made no attempt to test it in acute primary infections of mucous membranes. Neither have I tested it on suppurative cases, where there is a probability of mixed infection and ordinary surgical intervention is necessary. I have limited my experiments to the two classes favorably reported upon by the originators of the method:

**Journal of the A. M. A.*, January, 1906, pp. 261 and 263.

†Washington meeting, May, 1907.

*Parke, Davis & Co., of Detroit.

1. Those arising from the direct extension of the primary infection. 2. Those due to the entrance of the micro-organisms into the circulation either directly or through the lymphatics.

My observations have been made on private patients, fourteen in number; in several I used the serum alone, but in the majority I resorted to appropriate local treatment also. However, with the latter I used, as far as possible, analogous cases for comparison which I treated at the same time, but by local measures alone. This explains in great part the relatively small number of patients reported upon; I preferred to collect a few observations of some value, some of which I shall outline in this paper, rather than accumulate a larger quantity of incomplete or uncontrolled data. These observations include cases of prostatitis, seminal vesiculitis, orchitis, cystitis and arthritis.

The serum has been furnished in sealed glass bulbs containing 2 c. c., about 40 minims, of serum. I have used in all about 150 bulbs on the fourteen patients, and, as I have generally given the contents of one bulb, or 2 c. c., occasionally 3 c. c., at a dose, it means that I have given an average of about ten doses to each patient.

The first lots furnished were not numbered, but subsequently some marked No. 2 and some No. 3 were sent, with the request that I note what difference, if any, could be observed in results. The unnumbered variety I found most efficient, and, to my satisfaction, it turned out to be the most potent made, showing my imagination had not been at play. Fortunately, a large proportion of my supply was of the number one.

The doses were injected in the upper part of the buttock, usually twice a week, occasionally three times, sometimes only once a week in patients living at a distance. Of course, ordinary aseptic precautions were taken. Usually no local effect was produced. On two occasions the inguinal glands of the same side became slightly swollen and painful for a day or two. Several times there were swelling and tenderness at the site of injection, but in no instance did any abscess develop or even the serious threat of any. The injection proper did not prove more painful than any ordinary hypodermatic dose, and, in the majority of instances, there was no unpleasant sequel.

CASES.

I. D. D., of Mississippi, white male, aged about forty, came in with his physician. History and examination showed he had been suffering from chronic gonorrheal urethritis and prostatitis for over a year, and for several months from arthritis of wrist and left metatarsal joints. His left foot and leg were very painful and badly edematous. He was thin, anemic, had tried all kinds of treatment without avail. I made an injection of 2 c. c. at once, repeating it at intervals of two days twice, then every six days. He felt better after the second injection; after the third the arthritis had diminished; following the fourth the prostatitis had improved, and at the end of six weeks, during which he received nine injections and no other treatment, he was practically well; he had resumed work, had no more pains, swelling was gone, and he had gained several pounds.

II. A. M., of New Orleans, mail carrier, aged twenty-eight years, sufferer from subacute gonorrhea for six months, had been unable to work for over three months, owing to run down condition, muscular pains, and especially recurring attacks of orchitis. Only treatment consisted in inunction of guaiacol ointment to inflamed testicle and six injections of antigonococcic serum, a little less than a week apart, after which he was able to resume work.

III. R. R., of Texas, twenty-one years of age, had had gonorrhea eighteen months, chief suffering due to severe cystitis with pronouncedly purulent urine and such vesical irritability and tenesmus that he had to wear a urinal day and night. Was a morphin habitué and a physical wreck. Treatment: Injections of 2 c. c. antigonococcic serum, moderate doses of urotropin and hyoscyamus internally, and the gradual withdrawal of the morphin. Improvement commenced promptly, although it was impossible to irrigate the bladder, which could not tolerate even a tablespoonful of urine, and in two weeks he had stopped the morphin. At present he is still under treatment, which now consists of the serum and mild vesical irrigations; has had twelve injections in two months; has discarded his urinal long ago, has gained twenty-nine pounds, and his bladder can hold up to six ounces.

Most of the remaining cases were varieties of the same type; chronic urethritis complicated with more or less prostatitis, vesi-

culitis, rheumatic pains in muscles, tendons, or joints, together with some degree of debility or neurasthenia. They were treated locally in the usual way, together with the injections of antigonococcic serum as previously mentioned. All but one improved to a greater extent or more rapidly than the analogous cases which were treated at the same time by means of local treatment alone. The exception was in a patient whose case had been dragging along with very little improvement and which did not progress any faster with the serum.

It will be realized at once that this statement must be made with some reserve, as it is difficult to estimate accurately how a given patient would have responded to local measures. Still it must be remembered that as far as possible a careful comparative observation was made with what might be termed control cases and that the reporter had had experience with such cases for a long time previous to the experiments with the serum.

It was noticeable that the more pronounced the toxemia, or what might be termed the general symptoms, the more decidedly did the good effects of the serum become apparent. This notwithstanding the fact that there is no evidence that it is "in any sense an antitoxin." A possible and plausible explanation might be that the effects of the toxins are of short duration, hence the destruction of the gonococci, by arresting the formation of their toxins, would rapidly lead to a subsidence of the toxemia.

Rogers and Torrey believe that the serum acts by bringing about the destruction of the gonococci in the tissues by means of the specific immune bodies it contains. They have promised to publish later the details of experiments indicating that immune bodies are present in abundance in this serum.

Of course the number of cases I am reporting are insufficient to be convincing in themselves, but they may add some weight to the evidence which gradually is being accumulated. The majority of cases previously reported upon have been of arthritis, and eighty per cent of these were declared to have been cured or much improved by the use of the serum alone, while twenty per cent showed slight or no improvement. Many cases of infection of the genito-urinary organs have also been reported as having been acted upon favorably.

Experiments so far have given encouraging results, but contin-

ued trials on the part of many during a long period will be needed to determine definitely the true value of antigonococcic serum. Over-enthusiasm would be injurious. Nothing interferes more with a just verdict than the swinging of the pendulum too far in one direction, as the inevitable corresponding swing in the opposite direction delays the conclusion indefinitely.

The therapeutic efficacy of the serum once accurately determined, it will be timely to study its potency as a preventive of complications.

DISCUSSION.

DR. BLACKMAN: I wish to thank the doctor for this timely paper. While it reports only a limited number of cases, I would like to say that a limited number of cases, giving positive results, is worth hundreds that are negative. I am very much interested in this subject. I have been using this serum to a limited extent for a few weeks with indifferent results. I will try it again when I go home, and more carefully. I wish to report the case of a man who had had gonorrhea for eight years. He was a lumberman of intelligence. He came to us suffering with a pain in the region of the right kidney. He asked for an operation, and thought it would be beneficial. In examining the urine we found gonococci. We placed him on benzoate of sodium and the other usual treatment. We used 2 c. c. twice a week and now are using it once a month. He is suffering a good deal with cystitis and with pain in his right side. The gonococci are as plentiful as before, although we have used the benzoate of sodium and urotropin. I would like to ask if any other gentleman has had similar experience.

DR. EUSTIS: I wish to ask whether before discharging the case the doctor made an examination, and whether the prostate had gone down to normal size.

DR. LAZARD: My experience with this serum has not been as good as Dr. Chassaignac's. I have used it with both in hospital work and in office work. I have not used enough to enable me to form any definite idea. I used it in ten hospital cases and twenty-one office cases. No harm comes from the use of it. There is very little pain from the injection, and with ordinary care and asepsis there is no injury. I have noticed the best results in the use of serum where there was considerable temperature and in the

arthritis. They give quick responses. I must say, however, from what experience I have had, that I am very much undecided as to whether it is a good thing or not, but I am inclined to think that in time and in its proper application benefit of the substantial sort will follow its use.

DR. CHALARON: All of us who have had any experience with gonorrhea will hail with delight anything that will enable us to better handle the disease. I have been treating this disease for sixteen years. I went into its treatment with dash as a young man, and now I have acquired the utmost respect for it, not only in its acute form, but especially in the chronic form. I have had very little experience with the serum. Not enough to give me the right to speak positively. The question that arises in my mind is whether in some cases where it fails a mixed infection may not be to blame. I have always thought that the gonococcus may not be the only organism present in chronic gonorrhea. In other words, that there may be some other germ acting in conjunction with the gonococcus in these chronic cases.

DR. GESSNER: It occurs to me to inquire whether the gentlemen reporting results have all used the same preparation. I ask this because the serum is frequently confounded with the vaccine. Of course you have to make a distinction between the vaccine and the serum. It may be that that point would have something to do with the different results reported. I would like to know whether they are using the same preparation that Dr. Chassaignac has used.

DR. BASS: It is well known that the blood of animals inoculated with cultures over a considerable time, after the inoculations are stopped for a long time, still contains toxin or bacterial substance and not necessarily an antitoxin. It may be that the serum prepared as this has been prepared may be of that kind, and actually acts as a bacterial vaccine and not as an anti-serum. The suggestion of multiple infection made by Dr. Chalaron is an important one. It is a very rare thing to find the bladder infected by a single organism. I have found as many as six varieties of bacteria in a single culture taken from such a case.

DR. CHASSAIGNAC (in closing): In response to the gentleman who asks whether it is possible for gonorrhea to last eight years, I am not prepared to fix an exact period of time, but so far as my experience goes it is my belief that it may last indefinitely. It is

difficult to get an exact history of the case where you have to rely on the patient's statement, as they are usually more or less indefinite. With regard to the question of Dr. Eustis, I would say that I did examine the prostate as well as the urine, and know that the improvement which I had spoken of had taken place. The serum does not act with such rapidity that we can rely upon it for the relief of pain, and where there is great pain, which must be relieved, local treatment should be employed, but there is no reason why you cannot combine the local treatment with the use of serum. The local treatment is ordinarily palliative and relieves the pain for the time being. You can use the serum so as to assist in the complete removal of the trouble, as the two things are not inconsistent. Dr. Chalaron is correct in his reference to mixed infection, and we should never forget that point. We have mixed infections in many diseases; in yellow fever and many other conditions. There is no doubt that this is perfectly true in gonorrhea. In many cases we have infection and trouble long after the gonococci are gone. The cases reported were reported not because every case may be expected to do as well or because I want to puff up the serum, but because I want to get at the truth. I have no interest in the serum whatever, other than to make a thorough test and to determine its usefulness in the treatment of this disease. The first case was selected because absolutely nothing but the serum was used in the treatment. All kinds of things had been tried, and I explained to the patient that this was an experiment and if he was willing I would try it. It is the only case in which the serum alone was used. It is of most use not where patients get along very well with local treatment, but where there is a toxemia, where patients are all broken up, where it is difficult to get results by local treatment alone. In such cases you will get the most benefit. Do not take my results as samples of what always happens. I picked out a case which shows what may happen. Please remember this serum is still in the experimental stage. It is the only serum that I know of. The others are vaccines. I understood when I used this that it was merely furnished to a few for experimental purposes. I understand that it will be put on the market as soon as there is sufficient evidence that it is worth while. To give the firm due credit, I would say that they are spending a large amount of money in the experiment. It is of no advantage to them to put out a worthless preparation.

DR. J. BIRNEY GUTHRIE, of New Orleans, read a paper entitled :

A Discussion of the Actions of Certain Drugs on the Blood Vessels.

In choosing this subject for discussion in this section (*Materia Medica and Therapeutics*) the writer is of opinion that a brief review of the findings of modern experimental pharmacology, in regard to the most frequently used drugs acting on the vessels, would be of value. The present effort will be to summarize these findings and to point out wherein old notions of physiological action and therapeutic misconceptions which have been handed down from generation to generation are at variance with these findings. The advances in pharmacology are known to our students of medicine in schools of the first class; but are not within the reach of the average busy practitioner of medicine, for the reason that papers on this subject, if thoroughly scientific, have become too technical to be attractive reading to the average man, even if published in the journals which he reads. Again, certain text-books which bear a recent date are responsible for the perpetration of errors.

The drugs I have selected for discussion are those which are in the main types of groups having the same or similar action. Grouped in this way it becomes easier to discuss drugs in comparison with others.

VASO-CONSTRICTORS.—Drugs of this class act in one or more of the following ways: (1) Stimulation of the vaso-motor center; (2) stimulation of vaso-motor terminals; (3) stimulation of muscle fibres in walls of vessels themselves. There is no drug which can be demonstrated to produce a vaso-constrictor effect through a paralysis of vaso-dilator apparatus. Theoretically, this is a possibility, but no technic has yet been devised to prove such an action.

In order to prove a vaso-constrictor effect from a drug or the opposite, there are several methods of procedure. The web of a frog's foot, the mesentery, or other transparent part may be observed with a microscope before and after giving the drug. A rise or a fall in blood pressure without any demonstrable primary effect on the heart beat gives evidence of a constriction or a dilation of vessels as the case may be. This is measurable by a pressure manometer. If we wish to exclude the influence of the vaso-motor center we destroy the center or sever the connection with a particular organ

or region and determine whether the effect is the same as before. In apocodein we have a drug which in doses that an animal can bear paralyzes the nervous apparatus, but in respect to vessels, not the fibres in which they terminate. If after giving apocodein we still get a vaso-constrictor effect, we can conclude that there is a stimulating effect on the smooth fibers of the vessel walls.

Perfusion of an amputated limb or excised organ with defibrinated blood or artificial serum, and a measuring of the venous return, or of the alteration of volume, constitutes a method of excluding action on centers. A positive proof of effect on vaso-motor center is the ligation of cerebral vessels and perfusion of the brain with the drug to be tested.

Digitalis Group.—Included under this head we have a large number of drugs of widely different origin and of radically different chemical constitution; in this group are found besides, of course, digitalis, strophanthus, squills, apocynum, convallaria, all of which contain active glucosides. Adrenalin, and other suprarenal derivations, pituitary extract and cactus are also members of this group; but have been demonstrated to contain alkaloids. From a chemical standpoint still more heterogeneous members are such inorganics as barium salts, and sodium chloride, etc. All the above possess to a greater or less degree the following physiological effects:

- (1) Stimulation of heart muscle, and its irritability, a factor in raising blood pressure;
- (2) Vaso constriction, which is chiefly due to effect on muscle fibres, in walls of arterioles and partly secondary to a direct stimulation of medulla. This vaso constrictor effect is chief factor in raising blood pressure;
- (3) Vagus stimulation, secondary to rise in blood pressure due to (2). Here again can be traced a slight, primary stimulating effect on the vagus center.

As to the particular effect of the drug digitalis on the vessels, this much has been ascertained,—it produces a prompt and prominent rise in blood pressure, beginning before the increase in the force of ventricular systole occurs. Volume of perfused organs decreases after digitalis and venous return is lessened. Vaso-constriction occurs after administering apocodein. Hence we are justified in attributing to it a direct stimulant effect on arterial mus-

cles. Vaso constrictor effect is most intense in splanchnic areas. This sometimes has the effect of forcing blood into superficial areas, and mechanically dilating them. Pulmonary vessels do not participate in the general constriction.

A striking bit of experimental data, illustrating the more powerful effect of vaso constriction in spleen and leg, is obtained by obtaining curves of variations in volume respectively of leg and spleen before and after administration of strophanthin. The volume of spleen diminishes immediately, while the volume of leg increases. Strophanthin resembles in its action on vessels digitalin, while the most active glucoside of digitalis, digitoxin, has a more powerful general vaso constrictor effect. This may account for some of the striking clinical results obtained from intravenous injection of strophanthin, where digitoxin in form of a solution in glycerin extensively prescribed under the trade-name Digalen, was without effect. Certain it is that the vaso constrictor effect of digitalis is one of its least desirable features in the treatment of cardiac insufficiency, and it is our problem to get and maintain the effect on the heart muscle without unduly increasing the resistance. On the other hand, in conditions of very much lowered blood pressure, due to a loss of tone of vaso-motor system as in shock, hemorrhage, or intoxications, this local effect of vaso-constriction is most desirable, and digitoxin would be the glucoside of choice, and if immediate effect is necessary, intravenous injection the only method admissible. This method admits of far greater accuracy of dosage, and if done aseptically is free from pain or dangerous consequences.

Probably further acquaintance with strophanthin will result in a more extensive clinical observation of its actions. Experimental works to the end of mapping out the particular field of usefulness in disease, especially valvular cardiac, insufficiencies is being carried on. The almost immediate effect, the duration of a single dose—twenty-four hours; the accuracy with which dosage can be gauged, together with the painlessness of the intravenous injections of digitoxin and strophanthin are considerations which commend this procedure to the careful clinician. One of the first lessons learned in the laboratory work in pharmacology, especially where a class demonstration is being gotten ready, is the use of pure active principles of drugs, or at least a physiologically stand-

ardized preparation. We cannot time exactly the rate of absorption when a drug is given by the stomach and even hypodermic medication is uncertain as to complete and full effect. Hence, to eliminate so far as is possible the variable factor, intravenous injection is resorted to constantly as the method of preference.

Suprarenal Extract and Its Derivatives.—The work done in determining the physiological action of the extract of the suprarenal glands, culminating in the isolation of the alkaloidal active principle called variously suprarenin, epinephrin, adrenalin, etc., constitutes one of the most glorious achievements of modern experimental medicine. We know that it is the medullary portion of the gland that yields the active principle; and although clinically we know the drug best through its property of constricting vessels to which it is directly applied, it has a range of activity which can be summed up in almost the same words as digitalis, and in consequence there is no hesitation in putting it in the same group.

The most prominent effect after injecting adrenalin into a vein is an immediate rise of blood pressure, due to a stimulation of the end organs of the sympathetic. One proof of this is failure to get specific effect after giving apocodein, which, as stated, destroys the entire sympathetic apparatus, and the obtaining of the reaction after destruction of the centers alone. As could be prophesied, a result of this rise in blood pressure would be a vagus stimulation, and in consequence a slowing of the heart. Here, as with digitalis, there is also some central stimulation, and here also the rise in blood pressure preceded the slowing of the heart. A still further analogy is observed in the stimulation of the heart muscle and an increase of its irritability. The analogy is even more complete when we consider the effect on some other organs, which is not our purpose to discuss. However, when the factor of time is considered, there is the widest difference. Adrenalin's action on heart and vessels is almost instantaneous (and reaches its maximum in twenty to thirty seconds) and the effect on the circulation almost as quickly evanescent (two to five minutes). Digitalis, on the contrary, is slower to act, and the effect of a single dose often lasts for days. It is not possible, in the present state of our knowledge, to account for the wearing out of the vaso constriction effect. Fatigue has been advanced as an explanation, likewise oxidation

and decomposition in blood. The first can be excluded when it is remembered that the effect can be prolonged at will by continuous injection, or repeated by repeated injections. That it does not disappear from the blood stream, when its effect on circulation has become nil is shown by injection of blood from the animal into another and the obtaining of the vaso constrictor effect on this second one.

The most striking vaso constrictor effect is in the splanchnic area, and in the muscles. Here the effect is so powerful as to cause a passive dilatation of the superficial areas, and cerebral vessels. Probably the pulmonary and coronary areas are also free from a marked constriction (Crile).

Conspicuous as is the effect on blood pressure through intravenous injection, the effect is nil when given by mouth and injected sub-cutaneously. Meltzer claims an effect on general blood pressure when drug is injected deep into the muscles. This is in dispute. During the series of animal experiments there was observed on section rabbits which had been the subjects of more or less extended exhibition of adrenalin, a marked atheroma of aorta. Reports of these pathological findings were disquieting to some who had become enthusiastic over the intravenous therapy. However, it was found that the atheroma occurred only in rabbits, and that fifty times the therapeutic dose was necessary to produce the characteristic change in the media.

Crile (*Jour. Exp. Med.* VII) and others, Miller (*J. A. M. A.*, No. XX, 1907) advocate continuous intravenous injections, in 1-50,000 or 1-100,000 in shock, paralysis, of heart during anesthesia, or after electric inhibition of heart.

Crile believes that where heart beat is nil and a paralysis of vasomotor centers has occurred, blood pressure is reduced to zero, and it is impossible by mechanical means of saline infusions even associated with massage of heart through chest wall to secure the necessary 30 m.m. of mercury pressure in the coronary arteries, which alone will restore the heart. That adrenalin should be combined with saline infusion and then by massage the drug is carried to the heart muscle and distributed where most needed. He also advocates as adjuvant measures in this condition the head down position and his rubber air-inflated suit, which still further constricts the lumen of the vessels of the extremities. Crile cau-

tions against increasing too greatly the peripheral resistance on a weak heart, thereby running a risk of producing acute dilatation. In this event the head of patient should be raised and the air cushion suit deflated to remove some of the work on the heart.

Adrenalin given into veins is not without dangers. If, for example, this were done in a case of myocardial disease, secondary to sepsis, or other acute or chronic infection, it is conceivable that in consequence of the very great rise of blood pressure fatal dilatation might occur. It is useful in an emergency when vaso-motor paralysis occurs, and then only thrown into a vein; but it is manifestly useless in chronic conditions, and inactive given by mouth or sub-cutaneously.

Ergot: This is one of the most misused drugs. The writer has seen it given by mouth and injected into the muscles in almost every kind of hemorrhage, which could not be mechanically checked. It has been warmly advocated in many inflammatory conditions, even meningitis, because of a belief that it would diminish hyperemia. It has been used extensively to increase blood pressure in conditions where it was lower than normal. The light of accurate investigation proves none of these uses justifiable. It has a certain vaso constrictor action and causes a slight rise in blood pressure. The vaso-constrictor effect is through ganglia or on fibers immediately central to them. It varies in different regions and is most marked in pulmonary area. There is a primary depression and a subsequent stimulation of the vaso-motor center, and of the heart. Large doses produce the effect of apocodein, i. e., paralyze vessels and dilate them. Adrenalin does not then produce its characteristic effect.

Bradford and Dean in 1894 showed conclusively that it did increase pulmonary blood pressure, and, if so, it is irrational to use it for pulmonary hemorrhage. It could only be of use if it were known to contract a ruptured vessel more at point of lesion than elsewhere. This it cannot do, and its only possible effect in this condition would be to increase the bleeding through increased pressure. In uterine hemorrhage after labor, the case is quite different, and we have a mechanical occlusion through contraction of uterine muscle fibers. Any prolonged use of ergot, as in the so-called medical treatment of myomata, or subinvolution, may result

in gangrene of extremities or convulsive type of chronic ergot poisoning if drug employed is not inert.

Strychnin: Strychnin tested on animals produces a slight rise of blood pressure, when given in doses far in excess of therapeutic safety. In ordinary doses, in man and mammals, the central vasomotor stimulation—for such the action is—is not sufficient to alter blood pressure. Here again we have tradition at variance with experimental data. We have seen benefits too often in circulation come from therapeutic use of strychnin and attributed them to a particular vaso constrictor effect. This conclusion is not warrantable and we must search further for an explanation. The explanation may be that stimulation of respiratory center, digestion or central nervous system, has indirectly brought about the effect.

VASO-DILATORS: Under the caption, vaso constrictors, we have purposely omitted drugs which applied locally would cause, at point of application, a circumscribed constrictor effect, (astringents). So here we shall not consider such agents as may locally produce a dilatation of vessels (irritants), etc., and reserve the term for such agents, which, thrown into the general circulation, cause a general increase of the size of the arterioles and a lessening of peripheral resistance to the blood stream between the arteries and veins.

The Nitrites: These constitute a class of compounds which act chiefly on the vessels, dilating them. All of the series produce their effect through a peripheral influence. Perfusion of an amputated limb with fluid containing them produces a lessening of resistance and an increase in venous outflow. The volume of limb likewise increases.

Stimulation of splanchnics, after dilatation of intestinal area has occurred through their use, causes a constrictor effect. This argues for an integrity of the nervous apparatus, and speaks for an effect on the muscular tissues of the vessels themselves. The dilatation of the superficial vessels of the face and neck is greater than is observed in other skin regions. There is reason to suspect a certain amount of central depressor effect; but this cannot be proved, as perfusion of brain alone with nitrites in solution does not cause vaso dilator effect. Pulmonary vessels do not participate in the otherwise general dilatation. Indeed a rise in pulmonary pressure has been observed.

The effect on the heart is to quicken the beat. This is secondary to a lowering of blood pressure, but is due in part to depression of inhibitory center of the vagus. The quickening of the heart when nitrites are given occurs before the administering of atropin, but not afterward.

The member of this group which acts most quickly is amyl nitrite. This is given only by inhalation, as it is decomposed in the stomach, and its dilator effect is as prompt as the opposite effect produced by adrenalin. Its action is likewise as evanescent. Nitroglycerin can be given by mouth, hypodermically, or injected into a vein. Its effect is of longer duration. Sodium nitrite is slower still in acting, two to three minutes, and its effect lasts from four to six hours. The objection to its use is disturbance of stomach through partial decomposition. Erythrol tetranitrate is free from this objection, and more lasting in its effect. After therapeutic doses, it acts in fifty minutes, after the effect of the others has begun to disappear, and lasts five hours. Reasoning from the above, if a temporary effect is desired, as in controlling for a time a vaso motor crisis, for example in angina pectoris, amyl nitrite by inhalation, or nitroglycerin by needle, would be the preparation we should use. However, to ward off such an attack in the interval, sodium nitrite, or, better still, erythrol tetranitrate would be preferred. One of these might also be used in the treatment of the increased blood pressure of nephritis of arterio-sclerosis, where disagreeable or dangerous symptoms were known to occur as a result of the increased blood pressure. Such therapy might protect the heart against acute dilatation, or relieve it if it had occurred, or postpone the pathological hypertrophy of the heart, which would occur in either condition. In using any of this group, throughout a long period, the blood pressure should be our therapeutic guide, and we should bear in mind that tolerance of the drug would occur when persisted in too long, and intermit the treatment.

These drugs are not cardiac stimulants, in any sense, and from facts above stated would be contraindicated in any condition where as low blood pressure existed, notably in shock which is essentially a vaso motor paralysis. Their use in cardiac disease is only indicated where there is a considerable overload of the heart, and should be considered in the same light as venesection. Very often,

as stated under paragraphs on digitalis, it is desirable to overcome in part the vaso-constrictor effect of this drug, and a careful balancing of the effects of nitrites and that of digitalis might be the most desirable therapy. Fortunately such an indication is comparatively infrequent. With the well known action of lowering blood pressure in mind, the advisability of their use in controlling internal hemorrhage might suggest itself. The indication would be absolute if the bleeding vessel could not be expected to dilate too. This is as impossible as to expect a bleeding vessel to contract more than an intact one after ergot, or other vaso constrictor. However, as the vessels of brain and pulmonary area do not share completely in the general dilatation hemorrhage into these areas might be treated in this way, if the blood pressure were high, or if there were a margin of safety to work on.

I have not discussed every drug known to have an effect on the circulation. Nor have I attempted to set forth anything new in pharmacological research. This effort is chiefly to call attention to the necessity of accurate study of the effect of drugs on the vessels, to the end of having in mind a distinct and clear cut notion of its limitations, and of what each drug can be expected to accomplish as well.

DISCUSSION.

DR. GESSNER: The trouble about a paper like that is that the rest of us know so little about the subject that we cannot intelligently discuss it. I wish to express my appreciation of the work he has done, however.

DR. EUSTIS: I would like to know what the pharmacological action is in saline solution. What is it that produces the chill after an intravenous injection? If the doctor will touch upon this in his closing remarks I would appreciate it.

DR. ALLEN C. EUSTIS, of Abbeville, read a paper on "*Intestinal Parasites, With Special Reference to Strangyloides Intestinalis, etc.*" (Mss. not furnished.)

DISCUSSION.

DR. MARTIN: I had a patient suffering pain in the left hypogastrium, rigidity and some temperature. These were the only

special symptoms that we could make out. The blood examination was made by Dr. Bass, who reported thirteen per cent eosinophiles. The patient was treated with thymol and recovered in a very short time.

DR. BASS: Dr. Eustis is to be congratulated on the results obtained by this treatment. He is also to be congratulated on the scientific way he went about determining what the treatment should be. If you bear in mind the fact that the parasite is deeply buried in the mucosa of the intestine you will realize it is not very accessible to treatment. The case referred to by Dr. Martin has gone the same course of all the other cases I have had, as I have since learned. I have heard from the patient at a later date than Dr. Martin has. She passed from under our observation, not passing any more larvæ. She went to the country, but has since died, owing to an increase of the symptoms apparent at the time. It is possible that the case Dr. Eustis reports is not well at all, but there is temporary cessation of ovulation of the parasites. Most parasites cease laying eggs for a while when they have been treated with any irritant, such as thymol.

DR. EUSTIS (closing): Just one point, I should not have said the case is cured. I am still watching her. So far I have seen no embryos at all. So far as the thymol is concerned, I could see no result at all. I have seen them swim right through it. Salicylic acid has killed them immediately. Dr. Guthrie brought out a point which I cover in the paper. That is the close relation between this parasite and the *uncinaria Americanus*. The adult *uncinaria* after you have studied it closely does not resemble the *strangyloid*.

DR. WALLACE J. DUREL, of New Orleans, read a paper entitled:

The Relative Value of the Polynuclear Neutrophiles (Leucocytes) in the Diagnosis, Prognosis and Treatment of Tuberculosis.

In accordance with the investigations and conclusions of Arneth, one may obtain valuable and reliable data in tuberculosis from a count of the leucocytes. A blood picture showing a persistent increase of the relative percentage in the neutrophile cells belonging

to the first and second group of Arneth's classification is found to indicate the presence of a tuberculous condition.

Working in accordance with the above, and thinking that data of valuable importance could be obtained if such a "Blood picture" would always present itself in these tuberculous cases, I decided to do some original researches regarding this data, and though my investigations have just begun, I decided to give you this preliminary report of my present findings, with the hope that it may stimulate others to such research work, and perhaps enlighten us further upon this subject.

Arneth divides the polynuclear neutrophiles into five classes, according to the number of their nuclei; and again subdivides each group to the shape of the nuclei, whether round, hollowed or loop-like. Thus:

Group I. comprises cells with one nucleus, and is subdivided into myelocytes, cells with nuclei but slightly hollowed out, and cells with nuclei deeply hollowed out.

Group II. Cells with two nuclei, and three subdivisions, to wit, cells with two round nuclei, cells with two looplike nuclei, and cells with one round and looplike nucleus.

Group III. shows cells with three nuclei, subdivided into four varieties.

Group IV. shows cells with four nuclei, subdivided into five varieties.

Group V. shows cells with five nuclei, or more, and subdivided into five varieties.

For the sake of abbreviation, I will not take up the detailed enumeration of the normal percentages of the five groups and their subdivisions; but will briefly state that Arneth's "view-points," in showing that the percentage of one and two nuclei cells was noticeably increased in the tuberculous subject, is so far, according to my findings, correct.

Arneth tells us that, with the healthy subject the one nucleus cells give a percentage of 15%, the two nuclei cells give a percentage of 35%, the three nuclei cells give a percentage of 42%, the four nuclei cells give a percentage of 17%, the five nuclei cells give a percentage of 2%, and that, in the tuberculous, the number of cells with fewer nuclei notably increase in percentage.

My findings up to now do not exactly correspond with those of

Arneth's. I find that the percentage of the one nucleus cells in the healthy subject has been more than 5%; i. e., 10 to 25%.

In my findings the two nuclei cells seem to predominate; then come the three nuclei cells; then the one nucleus, and lastly the four and five nuclei cells.

But in all blood examinations of our tubercular subjects the noticeable increase of the one and two nuclei cells was very marked, and what proved of greater value and most interesting to me was that, as the disease progressed for the worse the relative percentage of the one nuclei and two nuclei cells also seemed to increase, and this always with symptoms showing a rapid progress of the disease.

The opposite also was shown to exist, i. e., when the patient's improvement was noticeable; and as he gained in weight, he stood an increase of tuberculin without any sign of reaction,—the "blood picture" changed, and showed a considerable larger percentage of cells with three, four and five nuclei than of the one nucleus cells.

I will not burden you with the different charts made in each case examined; but will say that the forty or more charts made show that as the disease advanced the larger became the percentage of cells with one or two nuclei. In one instance, when death following from acute miliary tuberculosis, two months after blood examination was made, the one nucleus cells showed a percentage of 75%, the two nuclei cells 22%, three nuclei cells 4% and none of the four and five nuclei cells. Two other cases showed a percentage of one nucleus cells at 87% and 90%, both moribund.

The following two cases I wish to place before you as best evidence of Arneth's theory and findings:

Mrs. F——, whose sister-in-law was a patient at my sanitarium, consulted me for what she called a slight "run down condition." Knowing the close relationship between Mrs. F. and her sister-in-law, I suspected some tuberculous involvement in Mrs. F.'s lungs, and though after prolonged examinations for two weeks, I could find no physical evidence of T. B. in the lung, I decided to make "blood examinations" before giving her the tuberculin test. This I did, and with finding a blood picture "as follows:"

1 nucleus cells 52%.

2 nuclei cells 40%.

3 nuclei cells 8%.

4 nuclei cells 1%.

5 nuclei cells 0%.

The above pointed towards a tuberculous condition, and after waiting a month before I again made another examination, I found that upon this examination distinct physical signs had developed at the apex of left lobe posteriorly, and that even a tuberculin test was uncalled for a positive diagnosis of tuberculosis. The blood again at that date showed itself pointing toward T. B. In this case I can say I made the diagnosis purely by the blood examination, and by the finding of such high percentage of one and two nuclei cells. Another case, which shows that if Arneth's views are correct we will have a valuable addition to our present methods, not only as an aid to diagnosis, but also as a guide for the tuberculin test and for the therapeutic administration of tuberculin. That of Miss G. diagnosed pulmonary and laryngeal tuberculosis, third clinical stage; had been under tuberculin treatment for six months, and though upon entering the sanitarium had showed an unfavorable blood picture, had improved markedly. Miss G. had reached a high dose of tuberculin (4 mg.), and was considered almost well on Dec. 25, when tuberculin T. R. (5 mg.) was given her; and though no suspicion or evidence of a reaction were present, I made another blood examination on the 26th. After counting my percentages of different cells, to my surprise I found that the one and two nuclei cells had increased by 20% to 25% over that found on the examination of Dec. 25. While trying to explain why such a change had taken place in the "blood picture" my nurse entered my laboratory with the statement that Miss G. was suffering with headache, pains in limbs, chilliness and temp 101.6 F. I immediately upon hearing this statement could explain why this change in the "blood picture" came. My patient had reacted to tuberculin, and the latter reaction had changed the normal blood picture into that of the tubercular. Showing that the resistant cellular element of the blood had been affected by the tuberculin, I decided to make successive blood counts the following eight days and to my astonishment and satisfaction found that as the effect of the tuberculin reaction disappeared, again I was presented with a "blood picture" closer to that of normal. At the end of ten days I again examined Miss G.'s blood, and found the same "blood

picture" previously found before the tuberculin reaction, i. e., normal. Wanting to be positive that the tuberculin was solely responsible for the latter condition of affairs, I again gave another dose of 5 mg, T. R. on Jan. 3d, with a repetition of the past account, showing conclusively that the tuberculin reaction altered the "blood picture" in the case.

Now, though this is only the very smallest evidence of the value of such examinations, still these two cases, and forty or more others also tabulated, show that some things of importance can be found by this method of blood examination. If in the future it can be shown conclusively that in the normal healthy subject the blood picture shows a greater percentage of two and three nuclei cells, and that in the tubercular the one and two nuclei cells predominate, then we will have a valuable method added to our armamentarium, both in diagnosis, prognosis and treatment of tuberculosis. I mentioned the prognosis because my findings up to now seem to show that the farther advanced the disease the higher the percentage of one nucleus cells and the fewer the three, four and five nuclei cells.

If, as I already said, the "blood picture" showed a percentage increased of one and two nuclei cells in a suspected case, we would have another addition to our present signs, indicating an early tuberculous lesion.

If in that blood picture we find a shifting from an abnormal to a normal blood picture after the administration of tuberculin, and will prove that, we will have a valuable guide for the administration of tuberculin and in this way we will feel more certain and at ease while administering this valuable product, permitting it to be placed into a broader usage. I will continue my investigations regarding the value of Arneth's views, and hope in the near future to present you with a large collection of evidence.

DR. ISAAC IVAN LEMANN, of New Orleans read a paper entitled:

The Dietetic Management of Cases of Diabetes Mellitus.

Individualisation is the keynote of successful treatment of this disease. The careless generalization of former generation of medical men finds no place in the modern dietetics of diabetes. It does

not suffice to lay down the rigid rule to the man in whose urine sugar was found: You must never again eat carbohydrate food. On the other hand we would have the melancholy satisfaction in severe cases of maintaining our patients with sugar free urine and yet of seeing them in spite of this progress rapidly to the grave; and on the other hand we would find ourselves often laughed at in mild cases where the patients, in spite of our instructions, continue to indulge their appetites and in spite of forebodings continue to enjoy life and apparent health for years. It is apparent at once that the indications in the first class of cases are quite different from those in the second class.

Our first duty, therefore, is to determine the degree of severity of the case before us. The patient is told to continue his usual diet, making a record of everything he eats and to save and bring the total quantity of urine voided in the twenty-four hours so that the total amount of sugar excreted may be estimated. This is repeated for several days in order that we may ascertain both the extent to which the patient partakes of carbohydrate food and the limit within which the glycosuria usually varies. Gradually, then, we begin to cut out the carbohydrate from the diet, beginning first with the sweets of course. Within three or four days we should have reached the time where the only carbohydrate taken in would be bread. This now should be carefully weighed and each day the amount of bread permitted should be cut down until it, too, is eliminated. We have now reached what is called the "Standard Diet (S. D.)." This term means only a diet entirely or practically free from carbohydrate; it is not a rigid prescribed diet slip, but may be varied to meet the taste of the patient or the limitations of the season or the country. The only essentials are: First, that it is carbohydrate free. And in this connection remember that milk can find no place in such a diet, for it contains carbohydrate, milk sugar. Secondly, the diet must be sufficient to maintain the nutrition; in other words, the withdrawal of the carbohydrates must be counterbalanced by an increase of fats and proteids.

During the course of gradual withdrawal of carbohydrates we shall have found that the degree of glycosuria gradually diminished. Upon this we base our judgment of the severity of the case. Mild cases are those where the sugar disappears from the urine before

the bread has been entirely eliminated from the dietary. The tolerance of course varies; some patients may eat 100 to 150 grammes of bread daily without excreting sugar; others put out sugar on a diet containing only fifty grammes of bread. We express the tolerance of these mild cases in the following equation: Tolerance= $S.D.+X$ grammes of bread. Moderately severe cases are those where the sugar disappears from the urine only when all carbohydrates have been cut out of the diet. Here Tolerance= $S. D.$ In severe cases the sugar does not disappear even when all the carbohydrates have been eliminated and it is necessary to reduce also the amount of proteid intake before a sugar-free urine can be obtained. Here we have the expression Tolerance $S. D.$; glycosuria= X grammes. In the most severe cases we are unsuccessful in getting the urine sugar free even after reducing the proteid intake. ;

Fortunately the mild cases constitute the large majority. The aim of the treatment in these should be to maintain the patient's urine permanently sugar free and to increase his tolerance. It has been found that this tolerance tends to increase so long as the patient remains within its limit and it tends to decrease in proportion as the patient exceeds that limit. This, then, is the first axiom in the dietetics of mild cases: They should never exceed their proven tolerance. Secondly, it has been shown that this tolerance can be increased by occasional periods of strict dieting; that is to say, with all carbohydrates cut out. These periods should last about two weeks and should be repeated once or twice in each year, according to the severity of the case. Most of these patients, it will be found, may be permitted to eat fruits (especially oranges and apples) and most vegetables in addition to their quota of bread. In fact these mild cases, especially those over forty years of age, may be permitted to eat practically everything that comes to the table, the sweets, pastries and cereals being cut out and the amount of bread being limited as above indicated. Each case, however, is to be studied separately for at least three weeks, and should be re-examined as to the point of tolerance at last once or twice a year. The urine should be examined three or four times a year in order to make sure that the sugar free condition has been maintained.

The moderately severe and the severe cases present greater difficulties. I cannot too strongly insist upon the point here that our aim need not necessarily be, and ought not to be, to get these

patients with permanently sugar-free urine. As I have already said, in spite of the most rigid diet, this is impossible in some cases, and the persistence of a rigid diet in such cases is sure to result disastrously. We must never fail to remember that we are treating the patient, not the disease. We recognize, of course, the universal experience that all other symptoms usually improve with the disappearance or diminution of the glycosuria, but that should not blind us to the fact that in securing the glycosuric condition we may do serious damage to the patient's strength and nutrition. The purpose of the dietetic treatment of these cases is as in the mild cases to improve the tolerance for carbohydrates. The moderately severe cases, namely those in whom a glycosuria is cured by eliminating the carbohydrates completely, we may treat along lines somewhat similar to those already outlined for the mild ones. Periods of strict diets of three weeks' duration should be instituted twice or three times a year. In the intervals, however, we must expect these patients to excrete some sugar, and our purpose is to keep this within bounds and to prevent a progress of the disease. We may be fortunate enough to find that the grade of glycosuria is less after each successive period of strict diet. Whether this be the case or not, we must be content if the amount of sugar excreted does not exceed 1% or 1½%, and we permit these patients during the intervals between the strict diet periods *even if they do not put out sugar* to partake of carbohydrates to the equivalent of not exceeding 80 grammes of white flour bread.

The severe cases, too, are subjected to periods of strict diet as regards abstinence from carbohydrates. These periods should be more frequently repeated than in the other two classes, and of shorter duration. They should last not more than two weeks and be repeated five or six times a year. At no time, of course, even during the strict period, are these patients sugar free. During the intervals they should be permitted about the same amount of carbohydrates as the moderately severe class, but their allowance of meat should not exceed seven or eight ounces in the twenty hours. They may be permitted to three or four eggs. Twice a week they should be instructed to omit both meat and bread entirely; these days are called "green days" because the diet on them consists practically of green vegetables. These severe cases are particularly difficult to handle from two points of view. First is the danger of

coma from too rigid dieting. It is particularly desirable and in some cases absolutely essential that these patients should at first be under perfect control in a hospital or sanitarium for three or four weeks so that careful analyses as regards acetone and diacetic acid may be made and controlled. The second point of difficulty is from the side of the gastro-intestinal canal. Stomach and bowel derangements are not uncommon when strict dieting is instituted. It is such derangements that have brought out the so-called "oat meal" and "potato" cures, for sometimes curiously enough when these severe cases do badly, both as to the grade of the glycosuria and as to other (subjective) symptoms they improve in all particulars when placed upon a dietary consisting principally of one or the other of these carbohydrate foods. An "oatmeal" cure lasts usually about three weeks, and consists in feeding the patient with oatmeal porridge which has been cooked in water for three or four hours. Of this porridge 250 grammes, with a couple of ounces of cream, are given every two hours. Eggs, butter and green vegetables are permitted, but no meat and no other carbohydrate. Every fourth day the oatmeal is omitted and the patient has a "green day." The potato cure is somewhat similar.

But the great criterion of all treatment in all forms of the disease is the state of the patient's nutrition. I cannot too strongly stress this point. We must not be carried too far in any direction by theoretical considerations. A weighing machine is an essential to the proper conduct of a diabetes case. In the period of observation the patient's weight must be noted once a week and afterward every month or two.

I conclude as I began. Each case demands separate study. Not only do cases differ in grade; they differ in kind. The tolerance of various patients toward various carbohydrates is different. And all this finds its proper place in a proper ordered dietary. Various complications call for various alterations of the diet. Unless the physician is prepared to give intelligent attention to these many details he cannot hope for good results from the diets he prescribes for his diabetic patients.

DISCUSSION.

DR. EUSTIS: I wish to second his point that we should make a study of the cases individually. Do not say that you will give no

carbohydrates. Let your treatment meet the needs of the case. A great many people speak of sweetbreads. These are rich in glucose. Liver and sweetbreads are contraindicated in these cases.

DR. CHASSAIGNAC: It is too bad that we haven't a larger attendance, because this is a paper of the greatest importance. We must not forget that patients may seem to be doing all right, so far as the results of the urinary examination are concerned, and yet they may be going down rapidly. Very often a patient would be doing better even if showing a little more sugar in the urine than if not allowed any latitude. Too strict dieting is a mistake.

DR. W. M. PERKINS, of New Orleans, read a paper entitled

Endaneurysmorraphy of the Posterior Tibial.

J. F., colored, male, forty years of age, admitted to Ward 27, Charity Hospital, Dec. 16, 1907. Previous history vague and contradictory, but approximately as follows: Alcoholics always used when accessible. Syphilis admitted, but not clearly proven by patient's account of himself.

About October, 1905, he was shot in left leg with a 38 calibre pistol, ball entering about four inches below head of tibia, on inner side, and emerging about two inches lower on outer side, over line of fibula. After being wounded patient walked about one hundred yards. A free hemorrhage continued from time of injury until wound was packed by physician, some half hour later.

Patient was kept in bed two weeks, during which time there was much pain and swelling of limb, but no pus and very little blood on dressings. Limb was apparently all right after a few weeks. There was no further trouble until August, 1907, when pain and swelling began, at first near old wound of entrance on inner side, later throughout the limb.

It seemed impossible to extract from the patient, who was a negro of the "Yas Sur" type, any definite information about the beginning of pulsation, but he stated that it stopped in November, 1907, just after a physician had incised the leg to relieve the increased swelling. Some "bruised blood" escaped from this incision, and patient dressed the wound for about a week.

Some time later a profuse hemorrhage occurred, and another physician applied an elastic bandage and sent patient to hospital. He was admitted on Dec. 16, 1907, suffering some pain, with leg swollen and apparently infected. Temperature ranged a degree or two above normal. Several days later a profuse hemorrhage occurred and was checked by bandaging. The next day the patient was sent to the writer's clinic for operation. The leg was found enlarged, with an infected wound over outer side of fibula about junction of upper and middle third.

This wound was enlarged, and fibula found eroded and necrosing. Further exploration with the finger beneath the superficial muscles of the calf disclosed a large mass of clot, some recent and some firm and laminated, and on clearing this out a brisk hemorrhage occurred. This was with difficulty checked by constrictor around thigh, and the cavity found to be about nine inches long, five wide, and when distended was about two inches thick. It was shaped somewhat like a fish, and lined with white, laminated clots. A single oval opening into the posterior tibial was the only source of hemorrhage. The fibula was perforated, apparently by the ball, and was necrotic for a short distance. There was pus in the wound. The walls of the cavity and the soft tissues appeared so discolored and badly nourished, that it seemed probable that the limb might have to be amputated.

Dr. Matas, who happened to be in the adjoining room, was invited in, and agreed that the case was suitable for his operation of endaneurysmorrhaphy, and he assisted in the operation.

Before locating the bleeding point, an incision had been made along inner border of tibia, to get at artery from inner side of leg. This incision was abandoned, and afterwards healed uneventfully. Great difficulty was experienced in finding the hole in the artery until, at the suggestion of Dr. Matas, the knee was well flexed and the calf muscles thereby relaxed.

The arterial opening was closed, after the typical fashion, with a continuous suture, taking up Lembert-like stitches in the inner wall of the sac, just barely encroaching on the arterial walls. The first line of suture was reinforced by a second, and the test made by removing constrictor. Sutures were found water-tight, and cavity was partly obliterated by sutures. The complete obliteration was impossible on account of the necrosis of the fibula and

the existing infection of the wound. The peculiar fish-like shape of the cavity, and the fact that the incision into it, following the already open wound over fibula, had entered along the thin edge of the "fish," made it easy to allow anterior and posterior walls to come together. It was unnecessary, and in fact practically impossible, to carry out here a typical infolding of sac-walls and soft tissues, as described by Matas. The necrotic fibula was curetted and the wound packed. Patient was much shocked, but rallied well by next day.

Wound healed slowly, with very little temperature elevation for nearly two months, during which time I saw him only once or twice.

On Feb. 13, 1908, patient had a chill, followed by fever, and an attack reported to be pneumonia, with albumen and casts in urine.

On Feb. 22 his tibia was freely opened for an acute osteomyelitis. Since then he has been slowly improving, and now walks around on crutches. A quantity of new bone has been thrown out behind the exposed trough of tibia, and a sequestrum will be loosened before long. The operative wounds on inner and outer side of leg have healed, and there appears to be no trouble about the old sac or the fibula.

The nutrition of the foot has not appeared to be in danger since the endaneurysmorrhaphy. This case has made me realize anew the value of the Matas operation, as I do not believe this patient's tissues would have survived the dissections prior to and the local ischemia following a ligation above and below the sac.

DR. W. M. PERKINS also read a paper entitled

Traumatic Aneurysm and Arterial Varix.

E. A., white male laborer, twenty-four years old. Admitted to Ward, 10, Charity Hospital, Jan. 4, 1908. Discharged Feb. 11, 1908. Moderate user of alcohol; has had no venereal diseases. Family and previous history not otherwise noteworthy.

About four weeks before admission, while skinning a coon with a pocketknife, patient accidentally stabbed himself in right thigh over upper portion of Hunter's canal. Wound bled freely until checked by friends with tight bandage.

A physician later dressed wound. One week later a slight hemorrhage occurred, but was easily controlled. From that time a pulsating tumor could be felt. In another week wound had completely healed, but patient remained in bed until December 28, 1907. When admitted to hospital, about one week later, he was found to be rather anemic and very badly scared; a pulsating tumor could be felt over apex of Scarpa's triangle, and a thrill typical of aneurysmal varix was felt over femoral vessels for several inches above and below the tumor. Pressing on the femoral artery at base of Scarpa's triangle stopped thrill and pulsation. Pulsation was expansile. A bruit could be heard with stethoscope. Temperature 100° when admitted, and ranged about 98° to 99° until after operation. (The week after the operation the temperature ranged from normal to 100 4-5°, and after that returned to normal. Pulse 110 when admitted, and ranged from 97 to 110 until distinctly convalescent.)

On Jan. 9 patient was etherized and constrictor put around base of thigh, where it was wrapped and kept with difficulty. Incision carried down through the attenuated and spread out fibres of sartorius, and the cavity of an aneurism without distinct sac entered. This cavity, which was about 1½ inches in diameter, lay in front of the vessel just at the beginning of Hunter's canal, and contained some laminated clots.

At the bottom of cavity was an oval opening nearly one-half inch long, and by gentle probing with blunt hook it was found that a second opening existed in the further wall of the vessel. This vessel was at first thought to be the vein, because of its thin walls and because of the dark color of the blood escaping from it. It was slit to get better access to supposed artery beneath. It was later found that the vessel opening directly into the aneurismal cavity was the artery, its walls thinned by diminished tension, with the venous blood coming through from the vein beneath. Dissection of the outer side of vessels was begun, with the idea that possibly the artery could be sutured at the expense of the vein, and thus by a modified endaneurysmorrhaphy be restored.

By the time the arterio-venous junction was exposed the extent of the dissection, together with the fact that the artery had openings on both sides, determined against any attempt to preserve the continuity of the artery. Dr. Matas, who was present, agreed that

it was impracticable to carry out his operation of endaneurysmorrhaphy under the existing conditions, especially as an hour-glass contraction of the artery would be the result of suturing from both sides, and as the vessel walls were already attenuated.

Artery and vein were ligated both above and below the site of the stab wounds and intervening portions excised. The aneurismal cavity was obliterated by a few sutures and wound closed.

Recovery was uneventful and patient left hospital in a month. In a similar case, if seen before the degeneration of artery had occurred, I would like to attempt the closure of the arterial openings by sutures, preserving the continuity of the vessel.

DISCUSSION.

DR. PARHAM: I consider the Matas operation a very valuable surgical asset, speaking from experience as well as from reading. The practical future of the operation is the suture within the sac. The suture in the saccular opening has some very distinct advantages. You stop the bleeding by closing the mouths of the vessels themselves within the sac. The normal relations of the tissues is disturbed less by approaching the vascular openings through the sac. Hence, the superiority of this operation over the antillus procedure is manifest. Taken all in all, it seems to me that the operation of Matas is far superior to any operation that has been devised. The other steps of the operation for the closure of the sac are merely convenient ways of obliterating the sac, but not essential to the operation. I assisted Dr. Martin in an operation where we ligated the first portion of the left subclavian, but the ligature failed to control the flow of blood into the sac. The vessel was then held by the fingers, and while so held the arterial opening was sutured very thoroughly. There was no hemorrhage. In this case suture succeeded after the ligature had proved ineffective.

DR. GESSNER: I will limit my remarks to making some diagrams on the board, which I have been in the habit of employing, to teach the subject to students. From the point of view of the Matas operation aneurysms are divided into two classes, those where there is one opening into the sac and those where there are two. The simplest is the sacciform, that is where there is one opening. This is the type which Dr. Perkins had to deal with in

this case. That opening can be plugged easily by passing in sutures, without cutting off the flow of blood through the vessel. The second type of aneurysm, and a more difficult type to deal with, is the fusiform, which is one having two openings into the sac, one feeding the sac and the other carrying away the blood. Both openings must be closed by suture, thus obliterating the vessel and making circulation dependent on collateral vessels.

DR. FELIX A. LARUE, of New Orleans, read a paper entitled

A Case of Purpura Hemorrhagica.

On February 16, 1908, I was called to see a young boy, *aet.* 5½ years, born in New Orleans of poor but healthy Filipino-Mexican parents.

The following history was given: On Saturday, February 9, one week previous to my first visit, the patient, although up and about, had a slight attack of fever, for which he was given a dose of castor oil. On the 10th he was still up playing in the yard.

On Wednesday, 12th. his eyes began to burn and two black blisters appeared on lower lip, which seemed to be fever blisters. The child's appetite was in no way diminished.

On Friday, 14th, two small hemorrhagic blebs developed on forehead. On Saturday evening the blisters still existing, the boy was taken to a druggist, who diagnosed the case as one of probable chicken pox.

At 9 o'clock that same night the patient suffered with pains in the right arm and thigh, and also in the lower right half of abdomen. During the night there supervened an edema of the left side of upper lip and presenting a dark bluish aspect, resembling when I saw him the next day for the first time, a contusion of the lip. A similar patch also appeared on the anterior portion of each leg.

On Sunday, the 16th, the little fellow had several attacks of epistaxis. Urine plentiful, clear and normal. Temperature 98 2-5, pulse 100.

Monday, 17th, urine clear. Saliva was tinged red.

Tuesday, 18th, urine became quite bloody. No pain. No fever.

Two large bloody blisters on dorsum of tongue, both conjunctivæ showed hemorrhagic spots, and also the interior of both cheeks, and the outer side of right upper lid. Temperature normal, pulse 126.

Wednesday, 19th, I found on patient's shirt a black dry scab, which had fallen from lip. No bleeding except from kidneys. Urine plentiful, stools whitish. Temperature normal, pulse 132.

Thursday, 20th, hematuria and nose bleed; a few bloody blisters were seen on hard palate. A soft boiled egg was given at 4 p. m., which he vomited soon after, but no blood. Temperature normal, pulse 132.

Friday, 21st. Hematuria; no epistaxis; gums bleed; patient sleeps well; micturition painful; face quite swollen; no fever; pulse 128.

Saturday, 22d, renal hemorrhage; edema of face subsided; bloody mucus flowing from mouth from the bleeding gums, staining pillow; no epistaxis; bluish spot over left side of upper lip, noted on 16th at my first visit, fading. Conjunctivæ more ecchymotic; pin point hemorrhagic spots on outer side of both cheeks, especially the right, also on right and left forearm and a few on back and abdomen.

Temperature for the first time since hemorrhagic manifestations above normal: 99 1-5; pulse 136.

Sunday, 23rd, patient suffered night previous with intense headache; no epistaxis; hematuria persists; good, well formed stool; bloody mucus still flowing from mouth; found patient suffering with pains in lower abdomen, intensified by pressure; bladder not distended, although micturition painful. Temperature 99 3-5; pulse 136.

Monday, 24th, enema at 2 a. m., for slight abdominal pains; result: bloodless constipated stool; otherwise a good night. Urine still bloody; no epistaxis.

Several hemorrhagic blisters on lower lip and on left side of dorsum of tongue. Micturition slightly painful. Temperature 99 2-5; pulse 136.

Tuesday, 25th, headache in the morning; no epistaxis; upper lip much faded. Vague abdominal pains; soapsud enema given; result: black liquid stool and a round worm.

Squibb's fl. ext. ergot, 10 drops, given at 1 a. m. and 4 p. m.;

vomited drug each time but no blood; drug discontinued; no epistaxis. At 1 p. m. urine passed was less dark. Temperature 100; pulse 130.

Wednesday, 26th, no epistaxis; saliva slightly tinged; urine lighter, with no clot formation in urinal; patient looks better and slept well. Vomited milk but no blood. Blisters on lower lip and tongue drying up. Dysuria less as urine clears up. Temperature 100 2-5; pulse 128.

Frequent itching on neck and arms during the day.

Thursday, 22nd, patient looking much brighter and stronger; micturition not at all painful although urine still reddish but much clearer than on previous day. Slept well all night; no epistaxis; no cephalalgia.

Conjunctivæ still ecchymotic; spots on legs and upper lip fading. Temperature 99 3-5; pulse 120.

Friday, 28th, at 1 a. m., for the first time urine was perfectly clear, hematuria having lasted ten days. Temperature 99 1-5; pulse 120.

Saturday, 29th. Hemorrhagic spots disappearing rapidly, also ecchymoses of conjunctivæ; blisters on tongue and hard palate entirely gone. Urine perfectly clear. Temperature normal; pulse 108.

Monday, March 2, had not seen patient for two days. Urine clear; bowels acting naturally; only very few bloody pin points on cheeks. Upper lip normal. Patient feeling fine. Temperature normal; pulse 100.

Tuesday, March 3, patient sat up awhile for first time; urine slightly bloody afterwards.

Friday, March 6, patient walked about aided; no more signs of hemorrhage.

Saturday, 7, ecchymosis disappeared from left conjunctivæ in the afternoon.

Sunday, 8. The right conjunctivæ cleared up entirely; patient walking about and declared well, after four weeks' illness.

The clinical picture of this case, although not as complete as I would like to have presented it to you, leads us, however, to diagnose the case as one of purpura hemorrhagica of the subacute type.

Purpura is met with in various conditions: in infectious diseases, such as typhoid fever; in toxic conditions, for instance

after snake bite; in the cachectic disturbances like Bright's disease, diabetes, cancer. It occurs also in acute miliary tuberculosis. Rheumatismal purpura is a condition, where rheumatoid pains with edema are present. Slight fever exists. The purpura manifests itself by petechiæ with seldom any other hemorrhagic signs.

Purpuric spots may also at times be seen with nerve lesions, especially of the cord.

Certain drugs, such as mercury, quinin, copaiba, belladonna, chloral, salicylic acid and iodide of potassium, may also give rise to purpura.

In scurvy, purpuric spots and ecchymoses exist, but this disease is so rare nowadays that we do not even think of it. My case, however, is easily differentiated from scurvy by the absence of fungous gingivitis, bloody infiltration of muscles and ulcerated hematomata of the cellular tissue. Furthermore, hematuria is not met with in scorbutic patients.

I mentioned above that my case was one of subacute purpura hemorrhagica, differing from the acute type of Henoch's disease, in which are present hemorrhages from the various mucous membranes, purpuric spots, septic symptoms, such as chills, hyperpyrexia and exhaustion, usually ending fatally.

The subacute type generally attacks children or young adults with or without swelling of joints or adjacent tissues, hemorrhages from the kidneys, bowels and mucous membranes. If the bleeding be from the gums, the teeth are not loose, as in scurvy. This condition is also known as Werlhoff's or Schonlein's disease.

Having clearly established the diagnosis of my case, I will say a few words as to its etiology and pathological anatomy.

The question of etiology is quickly set aside as no known cause has been determined. My patient, I must say, does not live in a very salubrious home, the apartments being low, dark and damp.

There are three other children, all huddled together, but none of the others presented the least trouble.

The pathological anatomy has, I do not think, been quite cleared up, for whatever theory is invoked to explain these purpuric extravasations: fragility of the capillaries, paralysis of the vaso-motor nerves; capillary emboli, hemic changes, it follows that one of two phenomena takes place: either there is some capillary

rupture or the blood previously altered filtrates through the vessels.

I will close with the most practical part of my paper, i. e., the treatment, which, if it did not cure, at least did not hinder the recovery.

Well, I must frankly admit that at first I was at a loss what treatment to adopt. I knew that many styptics, including adrenalin, had been given and their results vaunted.

I tried ergot twice and each time my little patient vomited. I decided then to cast all medicines aside and to treat my patient with acidulated drinks, milk, ice cream and water.

An enema was administered at intervals of a few days, and with this non-therapeutic plan I was rewarded by my patient fully recovering.

Orleans Parish Medical Society Proceedings.

President, DR. W. H. SEEMANN.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, *Chairman*.
DR. HOMER DUPUY and DR. H. D. KING.

Installation Meeting.

JANUARY 9, 1909.

Annual Report of Retiring President.

DR. AMÉDÉE GRANGER, Retiring President, read the following report:

NEW ORLEANS, December 31, 1908.

To the Officers and Members of the Orleans Parish Medical Society:

GENTLEMEN:

Before summarizing the work of the past year, I wish to again thank you for the honor of having elected me to preside over the destinies of your Society during that period. Animated by a de-

sire to carry out the declared purpose of our constitution, viz., the advancement of the science of medicine and surgery and the encouragement of scientific studies, I have labored faithfully to administer your affairs in accordance with the spirit of the constitution, and it is most gratifying to report that during the year 1908 such a large amount of scientific work has been done, and that the year has been marked throughout by general good fellowship and harmony of thought and action between the officers and the members.

This is the banner year from the standpoint of scientific work done, not only because of the large number (85) of scientific papers, case reports and exhibition of cases, which far exceeds the scientific work done in any previous year, but also because of the fact that these papers, reports, etc., were contributed by a much larger number of members (48); and, further, because of the fact that the scientific value and interest of our program are best attested by the larger average attendance (50) at these meetings. In compiling this average, election and quarterly meetings were not included. For this splendid showing of the scientific work done by this Society this year all credit is due to the painstaking, enthusiastic and amiable Chairman of the Scientific Essays Committee, and his able co-workers on the committee.

We have to deplore the loss by death of six of our members. In each of these sad instances the Society paid due respect to the deceased members by being officially represented at the funeral, later by passing resolutions and sending copies of these to the bereaved families. I would recommend that this custom of officially representing the Society at the funerals of deceased members by a delegation consisting of the President, or one of the Vice-Presidents, and three officers or members, be continued.

We have been much handicapped by our inability to find a desirable tenant for the lower floor of our building. This meant a loss in revenue of about \$600. In spite of this, however, due to the economical management by the Board of Directors, the Treasurer is able to show a balance on hand (December 31, 1908,) of \$35.61, after paying all our obligations, retiring four domicile bonds (amounting to \$104.00), and spending \$451.07 for the library.

Mr. George Augustin, the Assistant Librarian, has given proof.

as in the past, of his devotion to the interests and welfare of the Society.

The question of a domicile, with more seating room, and with a larger shelving space for our books; in short, one more suitable to a society of this size and importance, is the main question which confronts your newly-elected officers and yourselves.

Before closing I wish to thank my fellow-officers and the members of the Board of Directors and the chairmen and members of the various committees, for the cordial and earnest manner in which they have seconded my efforts and the members in general for their loyal support.

In handing over the gavel of authority to my successor, Dr. Seemann, I would earnestly bespeak for him, at the hands of his committees and especially from the membership at large, the same loyalty to the Society and generous support which has contributed to make my administration so thoroughly agreeable.

Address of Incoming President,

DR. W. H. SEEMANN, Incoming President, delivered the following address:

GENTLEMEN:

To occupy the presidential chair of this society, which has been graced during the past thirty years by so many illustrious men of medicine, is indeed an honor, the appreciation of which is deeply felt by me and for which I most sincerely thank you.

The Orleans Parish Medical Society, from its humble rise a score and a half years ago, has grown steadily in numbers, influence and power for good, until to-day it occupies a position of influence in the medical, social and political circles of the city and State, that is hardly realized even by the membership of the Society itself.

The power of the Society for good in the proposal of laws for the protection of the public health, and the suppression of certain crimes and their punishment when committed, is only limited by the assiduousness and sincerity with which that power is applied.

An united medical profession, working as it should, always with right on its side, and for the betterment of mankind, can win

any battle against corrupt practices or avaricious charlatanism. The co-operation in such campaigns of the lay press always constitutes a tremendous power for good, and is to be commended.

Along medical lines the benefits accruing from membership in this Society can readily be realized by a perusal of reports of its transactions.

While the attendance of members at our meetings has been gratifying in the extreme, and shows a healthy increase, it is to be regretted that even more of our members do not realize the magnificent returns in knowledge to be gained by sparing a few hours a month to attend meetings.

Gentlemen, I know that as the custom in the past has been for the incoming President to lay out some plans for the coming years it is incumbent for me to do some promising.

TO ENLARGE SCOPE OF SOCIETY.

A systematic effort should be made, not only by the officers but by the members to enlarge the scope of our Society and increase its power for good by proposing for membership such men of the profession of medicine who are not in our ranks and who are eligible by their qualifications to become members.

The present domicile of the Society is unfit in size, condition and arrangement to house for a much longer period, this society numbering as it does nearly three hundred members, and some steps should be taken to better this condition.

The ultimate disposition of what has become known as the Woman Question, and which, like Banquo's ghost, will not down, must plainly be determined—without disparaging the rights and opinions of any of our members, and, likewise, without injustice to the women of our city who have taken up our profession as their life-work.

The high standard of scientific essays and discussions during past years, and especially during last year, will be maintained, and if earnest endeavor makes it possible will be excelled.

The library should keep abreast of the times, and it devolves upon us to lend our assistance to the librarian in his efforts to keep our library properly equipped.

Gentlemen, with your help, I hope during my term of office that these "Desiderata" will be accomplished, and I can assure you

that if personal good will and intention deep rooted on my part will avail, then they will be accomplished.

Again let me thank you for the high honor of which I am proud, and I hope that at the end of my term of office I can feel that I have been of assistance to you.

In conclusion let me ask you, in the language of the Bard of Avon,

“Now join your hands, and with your hands your hearts,
That no dissensions hinder government.”

Address of Annual Orator.

HON. H. GARLAND DUPRE, Annual Orator, spoke as follows:

Mr. President and Gentlemen of the Orleans Parish Medical Society: I am greatly honored by the privilege of addressing the Orleans Parish Medical Society—a body that stands for so much in the professional life of our city, in whose membership reposes the physical well-being and therefore the prosperity and happiness of our 350,000 fellow-citizens, but I confess to a feeling of wonderment as to my selection for this honor—I can account for it only on the theory that you doctors wanted to hear from one who knew nothing about the Art of Esculapius.

If such was your idea, I may say in all modesty that you have chosen wisely, for, barring a rapid transit course in physiology and hygiene at the Tulane High School and one or two slight attacks of malaria in the good old days before the long-suffering mosquito was held to account for these visitations, I know no more about the history or practice of medicine than most of you know of the principles of Antichresis or the doctrine of the Thalweg.

But since you desired me to come, and, lawyer-like, I was glad to listen to the sound of my own voice, there are some things that as a citizen and a member of another profession, I may say that possibly will result to your own advantage and to the welfare and protection of the community.

It is human nature, of course, that those consecrated to a particular line of activity, requiring natural aptitude and special study and preparation, should be regarded with some hostility by the rank and file who are shut out of such activities. Espe-

cially is this true with regard to the members of the medical profession. Their theories and methods and operations must in the nature of things remain caviar to the general. The results are alone within the popular grasp, your success or failure in a particular case. And so if you make the blind to see, and the deaf to hear, and the lame to walk, and the sick to be strong, those who cannot accomplish these things while welcoming the result in their own cases, are resentful of your power, which is after all but short of creation itself. On the other hand failure in your efforts convinces the ignorant that you are an incompetent, an impostor, a quack.

That feeling possibly inherent in man and certainly existent to-day, may in part be ascribed to the fact that in the early Pagan days, it was the function of gods, not mortals, to heal, and that physical ailments could only be dissipated by incantations, sacrifices and other concomitants of superstition and idolatry. Nor did the idea of supernatural interference in curing disease disappear with the passing of the Olympian deities. For it was fostered by the churchmen to whom leadership in thought and action thereafter passed. They were the educated men of the time and naturally best qualified by study and research and experiment to give physical relief from pain, and so they combined with their priestly offices the practice of ministering to the sick. And thus by the unthinking the salvation of the soul and the cure of the body were looked upon as closely allied. When civilization had further developed, however, the religious aspect was segregated from the physical, monks were succeeded by secular physicians and monasteries gave way to hospitals. It was then alas! that the most dangerous foe of the medical profession appeared upon the scene, the quack—who, caring nothing for the religious phase, saw wide opportunity for terrestrial remuneration. So great these opportunities, so rich the returns, that his tribe increased in great numbers until the medical humbug became one of the component parts of society and received immortality from Moliere in "*Le Medecin Malgre lui*" and LeSage in "*Gil Blas*" and from other great authors.

The result of increasing charlatanry was of course to give impetus to that inherent hostility, latent in the average layman, because of your ability to restore health, avert death, and to do the

other great things that the skilled physician can do, and which the layman cannot, and which gods and priests did in the past. For when those outside of your ranks discerned through their own experience how large a percentage of quackery there was enlisted under the banner of medicine, it was natural for the uneducated or the disappointed to tar the whole profession with the same brush and to assume that all doctors were humbugs.

And thus as increasing competition in the battle of life developed an even larger crop of impostors (charlatans), the widespread became this view. It may not be pleasant to hear, but the fact remains that such is the attitude of a large element of every community. I do not mean to assert that it is the universal viewpoint, far from it. A majority of your fellow-citizens believe medicine is a noble profession, and that most of its high priests are animated by lofty ideals. They realize how it has advanced in the centuries gone by, what Jenner and Harvey and Sydenham have contributed to prolonging human life and alleviating pain, what the Listers and Kochs and Pasteurs have done and are doing in our own times. They watch with sympathetic eyes the experiment and researches that have robbed yellow fever of its terrors, Asiatic cholera of its perils, and that, please God, will soon vanquish that other and greater White Plague.

But the work of these generals past and present in the medical army and those hundreds of thousands of humbler soldiers who pursue their daily routine and with the oath of Hippocrates as their shibboleth, untainted by the commercialism of the age, give the best that is in them, is sapped, undermined, almost set at naught by the presence in your ranks to-day of Sganarelles and Sangrados. Their methods are not as transparent as those of their predecessors in literature. They wear twentieth century clothes, travel in automobile, have palatial office suites, but the spirit of the fakir animates them and their outward likeness to the honest practitioner only serves to give them greater opportunities of preying upon their victims. The presence of one of them, undiscovered and at work unexposed is as certain a focus of infection as a stegomyia gorged with the blood of the fever-stricken. In his single person lies the power to render negligible the work of fifty honest doctors, and to destroy the confidence in you and your attainments, and your honesty that is the basis of all professional success.

As a man then, gentlemen, and as a member of another profession, somewhat similarly situated, I urge you to see to it that the medical impostor has no place in our city and State. I am aware of the strenuous efforts that this society and that the State parent organization have already made in this direction, and I bid you Godspeed in that task and charge you not to turn aside from it. The work must be carried on by you, redemption can only come through you. Be not dismayed by momentary disappointment. Cast aside as the idle wind you heed not criticisms that would attribute your conduct to motives of self-interest, fear of financial competition and the like. Thrice is he armed that hath his quarrel just. There can be no defeat in such a contest. And surely never was a cause more righteous. And when the last fakir has been driven from cover, then will disappear whatever of prejudice exists in the public mind against the physician, and then will the medical profession take its proper place in the scheme of modern life.

Much that has been heretofore said has been academic, but there is something practical that I may suggest as conducive to the general result that I would accomplish. One of the potent factors in bringing your great profession into ill-repute is the average medical expert in law trials, especially criminal cases. One cannot pick up a newspaper these days without reading of these witnesses. It is almost invariably the case that the physician employed by the prosecution swears positively one way and two others retained by the defense, which usually has greater resources at its command, contradict their brother expert, either as to the nature of the wound, the course of the bullet, the kind of weapon used, the proximate cause of death, and more especially the sanity vel non of the accused. The recurrence of these unedifying accounts has become so frequent that the medical expert is now as much a subject of jest on the stage, in the press and in private conversation as the mother-in-law in the wit of the almanac. You, gentlemen, must recognize the belittling effect of such contrariety of professional opinion and the consequent levity of the multitude, and must realize how it reacts on the profession itself. It therefore behooves you to take steps to make impossible the continuance of these conditions. The remedy as I see it from an individual and from a legal view-point, is such a change in our laws as would remove the selection of experts from

either side of a case, and place their appointment in the hands of the trial judge. When either party anticipates the need of medical expert testimony, the Court should be advised of that fact, and in its discretion designate these experts, fixing by preliminary order their number, scope of examination and standard of remuneration, the latter to be taxed as cost of the proceedings. The result would be that the experts would exercise quasi-judicial functions and not degenerate into assistant counsel for the plaintiff or the defense.

The details are immaterial and could be possibly greatly improved by consideration of the subject by the medical fraternity itself. The present time in Louisiana is extremely opportune for agitation of this subject, since the way to relief is easily obtainable. As you doubtless know, a commission of three lawyers is now engaged by legislative direction in framing a code of Criminal Law and Procedure in this State. It is eminently proper that such a work should make provision with regard to this subject, and I have no doubt that the commissioners themselves would welcome suggestions and advice along these lines from the medical profession of Louisiana. I cannot help but think that legislation calculated to do away with these regrettable exhibitions would redound to the advantage of the entire profession.

Gentlemen, if it seems to you that in the course of these remarks I have dwelt only upon the vulnerable spots in your armor, it is not because of lack of appreciation of the innate nobility of your avocation and of the high character and lofty ideals of its exponents as represented in this society. Lip-service is easy, and it would have been certainly more pleasant to speak the honeyed words of adulation that fall so lightly from the tongue, but we are men in a world of men, and I thought it my duty to say, and I believe you wanted to hear, the things that might lead to finer efficiency in your work and greater appreciation from your fellows, for whose alleviation and amelioration you primarily enlisted in the practice of medicine.

MEETING OF JANUARY 23, 1909.

DISCUSSION OF JOACHIM'S PAPER.

DR. DUPUY: Dr. Joachim's report furnishes me with the opportunity of showing the Mosher esophageal specula for the

direct examination of the larynx and the esophagus. Proper use of these instruments permit inspection of the esophagus down to the clavicle. Morbid conditions and foreign bodies along this tract are thus brought actually within the field of vision. Diagnosis of the former and removal of the latter by this means becomes eminently feasible. The older methods of working in the dark with only partial success and much traumatism, are now succeeded by direct laryngoscopy and esophagoscopy.

DR. ALLEN: I was spoken to about the same case that Dr. Joachim had seen. With the skiagraph and history I do not see how they thought it to be in the trachea, for the child was walking on the streets, and had suddenly swallowed a five-cent piece; the only symptom that followed was one short cough, later some slight difficulty in swallowing at times; no difficulty in breathing or in speech. Arguing from a clinical standpoint, aside from any skiagraphic information, I do not see how a child of that size, only a few years old, could swallow a foreign body the size of a nickel and have it pass the larynx and lodge in the trachea without giving rise to decided and persistent respiratory symptoms.

Therefore I would have concluded the nickel was in the esophagus.

DR. HENRIQUES: There is no doubt as to the location of the coin. In the skiagraph, the wall of the esophagus appears distinctly on either side of the nickel.

DR. PERKINS: Foreign bodies are often held in place in the trachea by spasmodic contraction. During anesthesia the contraction may be overcome and the foreign body displaced. I recall a case of a child with absence of respiratory murmurs of one entire lung; caused by the blocking of the bronchus by a part of a grain of corn. The laryngologist who had the patient in charge prepared to search for the foreign body through a tracheotomy wound. Before the incision had been made, in fact, just as the patient relaxed in the anesthetic, a violent coughing spell followed and then respiratory sound ceased entirely. A rapid tracheotomy and artificial respiration restored the patient, who shortly afterwards coughed up the corn, which had apparently lodged in the glottis. So far as we could determine, the relaxation of anesthesia had overcome the spasmodic contraction in the bronchus, and the foreign body had been coughed up to the glottis, where it had been lodged.

DR. J. D. MARTIN: Do foreign bodies in the trachea cause constant coughing?

DR. DANNA: The subject under discussion reminds me of a story told me by a doctor patient of mine some two years ago. During vacation time following his second year as a medical student he took charge of an old doctor's practice in Arkansas, and among other things, in turning the work over to him, the old doctor said to him: "You will find the people in this section of the country have a habit of swallowing chicken bones, and you'll find that the following treatment works like a charm: Send the patient after ten cents' worth of sweet milk, let him sit down and drink it all, then give him a couple of teaspoonfuls of dilute acetic acid, and in about fifteen minutes give him a teaspoonful of syrup of ipecac, repeating every fifteen minutes until something happens." You can imagine the result. The milk is coagulated by the acid, and the vomiting induced by the ipecac causes this large mass to be forced up through the esophagus, stretching the esophagus out to its widest extent and pushing before it any foreign body that might be lodged there. I have tried it in two cases and it worked well, but they were both cases in which the patient thought he had a foreign body, but was mistaken. The doctor told me he had tried it in many cases with good results.

DR. JOACHIM (in closing). The point I especially wanted to illustrate was the absence of symptoms and the difficulty of diagnosis from the point of view of radiography as shown by the difference of opinion between two such eminent radiographists and between two expert surgeons. Therefore I have given no prominence to the inspection and examination of the organs by the different scopes designed for this purpose. This art has been brought to a high state of perfection by Kilian of Freiburg, Germany, and Jackson in this country, and is known to every one at all familiar in this line of work. Dr. Martin asked if the presence of a coin in the trachea would not cause incessant coughing or pneumonia. It certainly does in most cases, but we all know how quickly tolerant the parts become, as observed in the presence of a tracheotomy tube high or low. This child had no difficulty in swallowing, the gustatory sound on swallowing water was normal, the child ate without difficulty, had no fever, was playing most of the time, and seemed entirely normal, except for an occasional slight cough.

DISCUSSION OF DR. HUMMEL'S PAPER.

DR. BUTTERWORTH: Thigh frictioning is not infrequently met with in young female children, and it may tax one's resources to correct the habit at times, requiring the constant attendance of two persons, a day and a night nurse, in order to prevent indulgence in this practice. I cannot agree with Dr. Hummel that thigh friction in children induce merely a pleasurable tickling sensation; the rapid respiration, excitable movements, blanched face followed by relaxation and apparent temporary exhaustion speak for more profound emotions than a trifling titillation.

DR. SALATICH: Ninety per cent. of cases that come to the outdoor colored gynecological service, show elongated nymphæ.

DR. HUMMEL (in closing): I am pleased to note the interest which has been manifested in this subject; and this tends to strengthen the conviction I have had, viz—that such questions can be cleanly and properly discussed with profit.

Referring to some of the points brought up in the discussion, Dr. Guthrie evidently misunderstood my statement with reference to the comparative prevalence of masturbation in the two sexes. I did not mean to convey the impression that girls practice the vice as frequently as boys. My impression, however, is that it is much more prevalent in young girls than is ordinarily suspected, and that it is, as nearly as can be ascertained, nearly as frequent in female children and young adults as in males. No one can reasonably hope to get correct information on a subject of this kind by depending on answers to direct questions. It requires the greatest tact on the part of a male physician to approach such matters in history taking, and only under very unusual circumstances should he do so. I am not in a position to gainsay what Dr. Butterworth has advanced in regard to masturbation being a more profoundly sexual excitation in young children than I held it to be in my paper. The doctor's experience as a pediatricist fits him to speak with authority on the question. My statements on this phase of the question were largely based on the inference that, whereas the sexual sphere only comes into play at puberty, it is improbable that complete sexual orgasm can be experienced before that time. Dr. Salatich's inquiry as to whether hypertrophy of the nymphæ can be looked upon as a sign of previous excessive masturbation is timely. Manipulation of these parts will cause hyper-

plasia of the special tissue of which they consist. Women of some savage tribes, the Hottentots for instance, prize long nymphæ as points of sexual beauty, and the mothers of young girls are accustomed to manipulate these parts for that purpose. It may be said, then, that excessively long or large nymphæ are a fairly correct sign of the previous practice of the habit.

DISCUSSION OF DR. ALLEN'S PAPER.

DR. HENRIQUES: I would like to say a few words, not in reference to the technic of the operation, but as to the time for surgical interference. While admitting the brilliancy of the operation, there should be a well defined opinion in the minds of the general practitioner as to when the surgeon should intervene in cases of trigeminal neuralgia. The indications and contra-indications for surgical operation should be well known. If there is a cicatrix, callus, foreign body, or tumor giving rise to the trouble, surgery is indicated. However, less radical methods should be first tried in those cases due to malaria, rheumatism, the various cachexias, and those cases without assignable cause. Electricity, especially the method of Bergonie, has given results which should commend it to the physician. In this method a hemi-facial mask of metal, shaped like an E, is used. This covers the area of distribution of the three branches of the trifacial nerve. About 18 or 20 layers of absorbent cotton well moistened are placed between the metallic mask and the skin. Large amounts of current are necessary, 30 to 80 milliamperes, the facial electrode being connected with the positive pole. With this method one may expect 50% of cures, 40% of marked improvement and about 10% without improvement. Removal of the Gasserian ganglion should be adopted, not as a mode of preference, but only as a last resort.

DR. BRUNS: This result of the operation has an accepted place in ophthalmology and it is the consensus of opinion that there is a neurotrophic condition predisposing to these effects. The remedy employed is a tarsorrhaphy, for it is a more efficient method than the bandage. The general surgeon should use a closing operation on the eyelid before the major operation.

DR. SHLENKER: Why not try alcoholic injection,

DR. DANNA: I congratulate Dr. Allen on having achieved a surgical triumph for any general surgeon who has done a Gas-

serian ganglion operation, in my opinion, certainly has acquired the right to an entree among the big surgeons of New Orleans. This operation should only be done as a last resort, for when we take into consideration the many dangers of the operation, the danger to the eye, the danger from the length of the operation and of the anesthetic, we must think seriously before undertaking it. Harvey Cushing, who has done more of this work than any man in America and perhaps in the world, never undertakes to operate on more than one of these cases a day. I have seen him do four such operations, and the time required was from two to four hours. One case he gave up because of persistent oozing after he had been at it for nearly four hours. The operator should be properly qualified to undertake this operation, and he should have done it at least once on the cadaver. My own experience with this case will probably be of interest and will fill in some of the gaps of the history. Two years ago I did an osmic acid injection on his supra-orbital, infra-orbital, mental and posterior palatine branches. Nearly a year later he came back with pain on the inner side of the gum and in the tongue, but no pain in the regions where the acid had been injected. I now did an operation that I had seen Dr. Chas. Mayo do, that is made a trephine opening in the body of the lower jaw, exposed the dental canal and scraped out its contents and filled the cavity with a plug of lead. I then pulled the tongue to the opposite side, cut down on and seized the lingual nerve in the posterior angle of the tongue with a pair of artery forceps and twisted it off, rolling the nerve on the forceps and pulling it out of its distribution in the tongue, even to its smallest sub-division, which could be clearly made out by floating the nerve in a glass of water after its removal. The man came back the third time, several months later, and another osmic acid injection was done on him by another operator. When Dr. Allen saw him he came in for the fourth time.

In the Gasserian ganglion operation it is well to remember the danger of severing the ophthalmic branch, the eye thereby suffering the dangers of irritation and destruction by infection. In this operation the lids should be closed either by compress or suture.

DR. UPTON: I would like to ask Dr. Allen if he has had any experience with galvanic current in regard to fifth nerve injuries?

In the neurological service at Touro Infirmary much benefit has been derived from said treatment.

DR. PARHAM: I must take issue with Dr. Allen when he says that the operation of excision of the Gasserian ganglion may be compared with prostatectomy. I do not believe that the Gasserian ganglion will ever be removed with the same frequency as the prostate. The mortality from perineal prostatectomy is not over six or seven per cent, the suprapubic being somewhat higher. Although in the hands of some the mortality from Gasserian excision is low, taking the operations altogether it can hardly be considered as favorable as that of prostatectomy. I believe the operation should not be done until the peripheral procedures have been first resorted to. Indication seemed clear in the case which Dr. Allen has reported, because everything else had been done previously without relief, and I think Dr. Allen is to be congratulated on the way in which his operation was conducted, and upon its result, for the procedure is an exceedingly trying one, and the unavoidable bleeding is often so great, and the other difficulties are of such character as often to throw the operator into great embarrassment. The operation requires that everything should be done methodically and with the least damage possible to the important structures involved.

DR. ALLEN (in closing): In answer to Dr. Henriques' question, I might say that all the causes that he mentions were exhausted. I did not make mention of the names of any surgeons who had taken part in the treatment of this patient before he saw me, but Dr. Danna is here and may speak for them.

In reference to tarsorrhaphy, I am glad to have heard Dr. Bruns speak, as it may be well to adopt that plan in the future instead of closing the eye with a pad and adhesive plaster.

Regarding Dr. Shlenker's question, I have used alcohol, guaiacol and chloroform by injections for neuralgia and have had good results with all of them in suitable cases, but this was clearly not a case for alcohol, as osmic acid had been used twice by intra-neural injection and had given but temporary relief. The patient demanded something more, wanted his head cut off if necessary to get rid of the pain. I advised him that the only hope would be the operation, that is the resection of the ganglion.

I hope to see this operation become more frequent. I believe

with careful and delicate technic we can maintain a low mortality and see the operation become more popular.

Of course the greatest danger is inside the skull, and here the greatest delicacy of technic must be observed, particularly in controlling hemorrhage; many venous trunks are exposed and if injured may become thrombosed and infected, leading to disaster; what is wanted and all that is needed is delicate pressure maintained for a few minutes over any bleeding point, when it will soon stop as the vascular pressure is very low in all intra-cranial venous channels. Of course if we use an excessive amount of packing which exerts pressure in all directions, we only traumatise needlessly and invite later trouble.

The duration of the operation was two and three-quarter hours. About fifty minutes of this time spent within the cranium, and most of this fifty minutes spent in controlling hemorrhage. The mortality of the operation as statistics prove compare favorably with other dangerous operations; Cushing in seventy-two operations two deaths, Hutchison of London seven operations with no deaths. Dr. Parham's suggestions of being calm and steady and do not jar would insure good results.

I want to thank Dr. Danna for his kind and complimentary remarks.

DISCUSSION OF DR. LYON'S PAPER.

DR. G. F. PATTON: Both Dr. Guthrie and myself can testify to the value of the cultures made by Dr. Lyons in our ward (No. 18); one case in particular was shown by that method to be typhoid several days before the Widal reaction gave a positive result.

DR. BASS: A blood culture is of special value because when indicated it is to diagnose typhoid fever or other infection. In many of these also the bacteria can be grown from the blood and the culture therefore is not only of service in differentiating typhoid from these infections, but frequently the identity of the disease is indicated. Pneumonia and septicemia are examples of this class.

It must be remembered that a blood culture requires the facilities of a good laboratory and the work of a competent bacteriologist. The agglutination test on the other hand may be done with-

out more than a microscope and a killed culture of typhoid bacilli, if the microscopical test is to be made; or with an appropriate killed culture. One who has never seen a microscope for typhoid bacilli may make a microscopic agglutination test, which ought to be absolutely as reliable as the microscopic test. Cultures killed with formalin last many months and are to be recommended. Formalin 1 to 500 is sufficiently strong to kill and preserve the culture.

DR. DOCK: Dr. Lyons' work is very important, not only on account of its scientific bearing, but by reason of its clinical application, as will be still more apparent when the article can be carefully read. New diagnostic methods involve certain risks. In the first place, they tend for a while to distract attention from old, well-known and trustworthy methods. It seems an immense gain when we hear that the Widal test, for example, is positive in 95 per cent of cases. But if, as has happened too often, we depend upon it chiefly or alone, we shall fail in a certain number of cases. The possible danger of that is more obvious when we know that in not a few cases the Widal test is negative for a long time or all through the active stage of the disease. So, no matter how accurate a test may be, it is good practice to treat a patient with clinical suspicion of such a disease as typhoid fever, for that disease even if the Widal test is negative. Dr. Lyons' work also shows how a Widal may be a negative with one observer, or one culture, and positive with another—an old lesson, but one that is always new. The observations also confirm recent work as to the great advantage of blood cultures over agglutinin tests. The cultures are not only more certain evidence, but can be obtained earlier. While many details have to be cleared up, skill and care will always be necessary in this kind of work as in all other diagnostic manipulations. Also, negative results must be followed by repeated tests, and treatment not be based on such negative tests, but on the clinical features of the case.

DR. H. P. JONES: As to the patient that Dr. Dock speaks of, and to whom so much reference has been made in this discussion, I wish to say that I treated this man in outdoor clinic No. 11 of the hospital, and advised him to enter the hospital, telling my students that the man probably had typhoid fever, but that on a single examination without any clinical laboratory investigation

it was impossible to determine definitely as to whether he had typhoid fever with pneumonia, or typhoid fever or pneumonia singly. In any event, it was necessary for him to enter the hospital.

DR. LEMANN: With regard to the Widal reaction, we have always heard dissatisfaction expressed in two directions; failure to get the reaction in some undoubted cases of typhoid and on the other hand the presence of the reaction in cases other than typhoid. About eight years ago I took the blood of several hundred patients selected at random in the Charity Hospital. In these I found that I failed to get the positive Widal in undoubted typhoid in about two or three per cent, and got the positive reaction in two or three per cent of these patients who did not have nor ever had had typhoid. These figures correspond closely with the results of the tabulation of 14,000 case from the literature. The Widal reaction is not an absolute criterion, but does give the correct answer in 95% of the cases at some time of the disease or during convalescence. We must never forget that laboratory findings are most valuable and indispensable aids, but that they are only aids. This is true of blood cultures, as it is of the other laboratory methods. Blood cultures have a great advantage over the Widal, in that they seem to give the reliable answer early in the disease.

DR. LYONS (in closing): In regard to the remarks of Dr. Archinard concerning the Wyeth-Johnson test, I do not feel that I am in a position to discuss them, having had but very slight experience with the dried blood test—however, it seems to me that physicians should be encouraged to send blood to laboratories in Widal tubes or pipettes which can be sealed in a flame, so that after having made the Widal and if found negative, there still remains the opportunity of obtaining the bacillus from the clot.

Dr. Dock has mentioned the value of the blood culture as an aid in cases where a differential diagnosis was difficult or impossible. In just such cases the advantages of using a bouillon and milk flask, in conjunction with the bile tubes, come in; for should the case be one of typhoid a diagnosis could be speedily made from the bile tubes; on the other hand, should the condition prove to be one of septicaemia or pneumonia, etc., the chances of obtaining the organism from the broth or milk would be exceedingly good.

Dr. Bass states that probably the only objection to the blood culture in typhoid is that it takes two or three days to get a diagnosis. I cannot quite agree with this. It is easily possible by incubating the bile tubes for twelve hours, then transferring to blood serum, to obtain a motile bacillus from the fluid of condensation within twenty-four hours, which if gram-negative is presumptive evidence that the organism belongs to the typhoid-colon group—though of course the bacillus should always be further identified.

NOTICE.

THE LOUISIANA STATE MEDICAL SOCIETY

WILL MEET

TUESDAY, WEDNESDAY AND THURSDAY,

MAY 4, 5 AND 6, 1909,

AT THE

JOSEPHINE HUTCHINSON MEMORIAL,

(TULANE MEDICAL DEPARTMENT),

CANAL ST.,

NEW ORLEANS, LA.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Research in Medical Education.

A wave of intelligent appreciation of the laboratory worker has spread over our country in the past ten years. Before that the investigator was one among many who separated himself at a sacrifice of time and energy, not to mention pecuniary considerations, in order to satisfy his own ideals of truth, as found in research.

A few schools of medicine offered opportunities to such workers, but most schools considered such work entirely individual and outside of the scope of the college curriculum and purposes. All this has changed, and a modern school of medicine must afford the opportunity—now found in special laboratories in many places, some of them apart from college affiliation.

The medical graduate of the future will need to know many things now only in the experimental stage, and his training must be more than superficial or perfunctory. The remark often passes that medicine has got to be a group of specialties, and the old-time general practitioner has no longer a place. But as true as this remark was a few years ago, and as true as it may be to-day, just so sure is the reaction coming, when the trained physician will be educated on all branches of medicine to a point where the specialist will serve as an expert only and not an omnibus for all cases in his line, just because he specializes.

Among other things of notable evolution is the laboratory training of the young physician today. Time was when a bundle of test tubes, a few urine tests and a urinometer were all the laboratory equipment a doctor needed, and these grew dust laden most everywhere. Now the modern man goes out prepared to make his own blood counts, typhoid tests and to do much of his bacteriological examinations, even by culture, and the microscope is a vade mecum.

The persistent research work of the pioneers has brought this about, and their efforts have cleared the way for more opportunities open to the student, in and out of college.

The diploma must not be the conclusion of the graduates' investigation, and the greater usefulness of every man who goes out can be demonstrated, if he is only encouraged by an education in research which may instill in him the "afflatus" which must lead to his own discoveries.

The agitation of research for the teachers in our schools is receiving considerable attention and there seems to be two sides, or at any rate there are antagonists as well as protagonists. Meantime the teacher who is interested in research goes on asking and usually goes on getting the chance to better his teaching by his research, and, let it be said, the modern teacher of branches in medical study related to laboratory instruction is as much interested in the art and science of his branch as he is in the pedagogic practice of it.

The student of medicine has changed much from one generation to another since the days of Rabelais, when even instruction in medicine was dangerous at times, unless under royal favor. Strong flashes of the modern conception of medical instruction have been thrown among the clouds of ignorance and of assumption banked against and about the silent workers, and the forty years since Pasteur have broadened the light into a perfect aurora of brilliant achievements—each, however, arrived at after a long application in the laboratories of research. Men must be trained to go on with the work, and they must begin with the spiritual instincts born in the college days, and, when the instinct shows, the encouragement should be forthcoming always.

A Compliment.

A unique and noteworthy compliment has been paid our esteemed confrère and colleague, Dr. P. E. Archinard, through the translation and publication in Chinese of his "Epitome of Microscopy and Bacteriology" for the benefit of Chinese medical students. Dr. W. H. Venable, a talented Virginian, is the translator, and is the physician in charge of the Kashing Hospital. He selected this work as being the most concise on the subject, while not sacrificing clearness for the sake of condensation. He states

that after diligent search he has found this book the most satisfactory for the purpose of any that he could get in the English language.

Dr. Archinard is to be congratulated upon this evidence of appreciation for his work on the part of an able and unprejudiced writer. Additional importance is given to the selection by the adoption of the work as a text-book at the Pekin Medical School.

The American Society of Tropical Medicine.

The American Society of Tropical Medicine will hold its sixth annual meeting at the United States Naval Medical School, Washington, D. C., on Saturday, April 10, 1909. The group of participants in the projected meeting is to include some of the recent workers in this division of medicine in this country and in some of the dependencies of the United States.

So thoroughly has the importance of tropical medicine impressed itself upon the different divisions of the government that not only the Public Health Service, but both the Army and the Navy have taken up the study of tropical medicine. On the program projected we note contributions from American representatives in China, in the Philippines, as also contributions from the distinguished bacteriologists, Dr. Calmette, of Lille, France, and Drs. Rogers, of Calcutta, and Choksy, of Bombay, India.

We are pleased to notice a considerable representation from New Orleans, embracing Major W. P. Chamberlain, of the Jackson Barracks, and Drs. Bass, Dock, Guthrie and Talbot.

The importance of New Orleans as a field for the study of tropical medicine cannot be too strongly emphasized, and as our observations increase it grows more and more patent that with such a port of entry as New Orleans is to-day and promises to be hereafter, it must follow naturally that the group of diseases peculiar to the countries south of us must grow more and more in number and in the frequency of their occurrences.

Already strong argument has been submitted for New Orleans as the logical point of establishment for a school of tropical medicine, and our institution for medical teaching, the Tulane University of Louisiana, is already equipped in some degree and proposes a greater equipment for the laboratory investigation of this branch of medicine.

Medical News Items.

ST. JOHN—ST. CHARLES BI-PARISH MEDICAL SOCIETY.—At the annual meeting of the St. John—St. Charles Bi-Parish Medical Society, the following officers were elected: Dr. S. Montegut, President; Dr. E. P. Feucht, Vice-President; Dr. L. Cheves Tebo, Secretary-Treasurer.

ALABAMA STATE MEDICAL ASSOCIATION.—The Medical Association of the State of Alabama will hold its next meeting in Birmingham, April 13.

CALLED MEETING OF THE MISSISSIPPI STATE BOARD OF HEALTH.—Dr. S. H. McLain, Secretary of the State Board of Health of Mississippi, has called a meeting of the health officers of that State, to be held in Jackson, April 12, the day before the meeting of the State Medical Association.

CONFERENCE IN BOSTON ON THE CARE OF TEETH.—The first State conference on the care of teeth has just been held in Boston. Noted physicians, dentists and educators discussed the matter of oral and dental hygiene, with a purpose of bringing it before parents, teachers, social workers and philanthropists.

OPEN MATERNITY HOSPITAL.—The new Jewish Maternity Hospital in New York City, which was built and equipped at a cost of \$100,000 by subscriptions ranging from 25 cents to \$500, was formally opened to patients to-day. It is the first institution of its kind on the East Side, and although it will be conducted in accordance with the rules of the Jewish faith, women of any creed, color or social condition will be taken in and the service will be free of all charge except to those who are able and willing to pay.

ALABAMA NOTES.—The Jefferson County Medical Society met at Birmingham, Alabama, March 15, with an attendance of about 150 members. The especial paper of the occasion was "The Diagnosis and Treatment of Heart Disease" and a talk on Medical Libraries by Dr. George Dock, of New Orleans. At the clinical meeting in the amphitheatre of the Hillman Hospital on the morning of March 15, Drs. Heacock (Tulane, '92) and McLester presented some very interesting cases which were discussed by the visiting guests.

DR. O. JOACHIM, chairman of the Sanatorium Committee, reports that a few beds are free at the Anti-Tuberculosis Camp. The doctors of the city and State are at liberty to recommend poor patients likely to benefit by camp treatment, acceptance to be determined by Dr. Bel, official examiner.

SUCCESSOR OF THE MOBILE MEDICAL AND SURGICAL JOURNAL.—*The Gulf State Journal of Medicine and Surgery* is intended to be the successor of the *Mobile Medical and Surgical Journal*, but for the present will be known under both titles. Dr. Seale Harris is the editor, and he has a strong corps of collaborators.

BOARD OF ADMINISTRATORS OF THE JACKSON INSANE ASYLUM.—The new Board of Administrators of the Jackson Insane Asylum is composed of the following: Dr. J. W. Lea, Jackson; Messrs. J. Adler, Wilson, and Max Samson, New Orleans.

THE CHOLERA SITUATION IN ST. PETERSBURG.—According to press dispatches, cholera has been epidemic in St. Petersburg for 160 days. During that time 10,000 cases have been reported, with 3,928 deaths. The highest number of cases reported in one day was 444.

THE FIGHT AGAINST CONSUMPTION.—According to a report issued recently by the Local Government Board of London, the number of deaths from tuberculosis in England and Scotland has decreased by one-third in the last fifty years.

INFORMATION WANTED.—Dr. William F. Waugh, at No. 1424 East Ravenswood Park, Chicago, Illinois, is collecting material for a paper on atropin as a hemostatic, and would appreciate any notes of experience of the readers of this JOURNAL who would send the same to him.

THE UNIVERSITY OF VIRGINIA, at Charlottesville, has just received a million-dollar endowment fund, a large part of which was raised by the efforts of the University and its friends.

PERSONALS.—Dr. E. M. Hummel has recently been appointed visiting neurologist to the Eye, Ear, Nose and Throat Hospital.

Dr. R. A. Von Ezdorf, who has been in charge of the Quarantine Station at the mouth of the river, will be absent on leave for a vacation in Central America.

Dr. J. B. Hart, of this city, has returned from Mexico.

Dr. John B. Strachan, who has been doing post-graduate work at the New Orleans Polyclinic, is now located at Hot Springs, Ark.

Dr. W. P. Addison has just finished a course at the New Orleans Polyclinic and will take up his practice at Ida, La.

Among the visiting doctors to the city during the month were Dr. A. Herold, Shreveport, and Dr. Geo. Royal, Des Moines, Iowa.

Dr. Ramon Guiteras, of the New York Post-Graduate Medical School, is now on a leave of absence on a scientific and hunting trip in Central Africa, going by way of the Nile and the Lakes.

Dr. T. B. Layton will be stationed at Bluefields, Dr. Leroy P. Stone at Tampico, and Dr. A. Maylie in the West Indies.

REMOVALS.—Dr. T. J. Box has moved from Legonier, La., to Jacoby.

Dr. D. H. Alverson from Deltabridge, La., to Newellton.

Dr. P. E. Waddell from Natchitoches, La., to Alexandria.

Dr. J. P. Derham from New Verda, La., to Holloway.

Dr. L. Daly from Opelousas, La., to Shuteston.

Dr. C. H. Irion from Shreveport, La., to Benton.

Dr. W. B. Mask from Bossier, La., to Liberty Hill.

Dr. S. R. Fox from Moreauville, La., to Morgan City

DIED.—On March 4, 1909, Dr. H. S. Olliphant, formerly of New Orleans, died at Lettsworth, La.

On March 5, 1909, Dr. Joseph Schmittle, aged eighty years.

On March 14, 1909, Dr. J. W. Bennette, of Brookhaven, Miss., at the age of eighty-one.

On March 15, 1909, Mr. Edwin Marks, Secretary of the Charity Hospital for thirty years.

TULANE NOTES.

THE EXTENSION COURSE OF THE MEDICAL DEPARTMENT for April will include a group of lectures by Dr. C. W. Stiles on "Certain Southern Anemias, Their Cause, and Prevention," arranged according to the following syllabus:

"Hookworm disease and malaria; nature, cause, treatment, prevention; soil pollution in the South and its role in increasing the death rate, especially in connection with hookworm disease and typhoid fever; the unsanitary life of the negro and his influence in spreading hookworm disease, typhoid fever and malaria; the present conditions of the tenant white class of the South due

largely to medical influence of the negro, hence a betterment of existing conditions is largely a medical problem."

Lectures will be given at the Hutchinson Memorial, beginning April 5 and ending April 8. Cards may be obtained at the Dean's office at the Hutchinson Memorial, and the medical profession generally is invited.

ALPHA KAPPA KAPPA CONVENTION.—This Greek letter fraternity of medical colleges held a successful meeting February 23, 24 and 25, at the St. Charles Hotel in New Orleans. The arrangements were excellently carried out by the local branch of the fraternity, the Alpha Beta Chapter. The convention concluded with a banquet at the St. Charles Hotel on February 25, at which there was a large representation of local medical men, in addition to the visiting delegates. The occasion was distinguished by the retirement of Dr. George L. Cook, of Dartmouth, who was presented with a silver loving cup and an ivory gavel, both of which were given him with appropriate expressions of the fraternity's regard. A number of interesting toasts were delivered, all breathing the fraternity spirit.

THE TULANE DENTAL DEPARTMENT.—The plans for the establishment of a Dental Department associated with the Medical Department of the University have about been reached by the Board of Administrators. It has been informally announced that a Dental Department is assured, with Dr. Andrew G. Friedrichs, former Dean of the New Orleans College of Dentistry, as the head of this division of instruction.

FOUNDERS' DAY EXERCISES.—Founders' Day of 1909 was a record-breaker, both in attendance and in the distinction given to the occasion by the presence of President Eliot, of Harvard University. The Medical Department turned out strong, with over 400 of the under-graduates in the line of march. The occasion was held at the Atheneum, which was packed with an attentive and appreciative audience. The Alumni address was delivered by Mr. Abraham Goldberg, a graduate of the Academic and Law Departments, who made a strong plea for the training of students in commerce and finance along the lines of modern requirements as recently planned in the graduate school of Harvard devoted to this purpose.

President Eliot spent the time allotted to him in discussing public spirit, especially as related to the embellishment of cities and in the proper training of youth. A considerable part of his address academically treated of the benefactor who expended wealth in public education, and he defined the breadth of such a purpose.

The exercises were concluded by the conferring of the Doctorate Degree on President Eliot and on Mr. Henri Vignaud, a distinguished Louisianian, for over thirty years prominently identified with the American Embassy in Paris, and at the same time an historian and literateur of eminence.

BIRMINGHAM ALUMNI—Dr. James M. Mason (Tulane, '99) entertained the local Alumni of Tulane at a buffet luncheon and reception, given on March 15, at which quite a number of University of Pennsylvania Alumni were present to meet Professor Dock, who was the guest of the local medical society. An enthusiastic appreciation of the recent developments in the Tulane Medical Department was evidenced at the function.

Professor A. L. Metz and Professor Gustav Mann have been elected Fellows of the American Association for the Advancement of Science. Professor Palmer B. Caldwell, of the Department of Chemistry, has received a like distinction.

SENIOR CLASS EXERCISES.—The graduating class of the Medical Department are planning extensive class exercises for May 15, to take place at the Hutchinson Memorial. All alumni of the Medical Department will be welcome.

CHARITY HOSPITAL APPOINTMENTS.—The following third and fourth year Tulane students have been admitted to interne positions in the New Orleans Charity Hospital after a successful competitive examination: Earle Brown, Dan C. Donald, Francis M. Faget, Alexander Ficklen, M. J. Gelpi, C. M. Horton, E. L. King, Hy. Leidenheimer, W. Alvin Love, J. Arthur Newman, T. J. St. Martin, and S. P. Wise.

TOURO INFIRMARY APPOINTMENTS.—The following members of the graduating class of Tulane Medical Department have been appointed to interne service in the Touro Infirmary: Messrs. G. W. Faivre, T. E. Wallace, A. F. Hoge, and P. G. Gamble.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Military Hygiene. A Manual of Sanitation for Soldiers. By R. H. FIRTH, Lieut.-Col. Royal Army Corps, &c. B. Blakiston's Son & Co., Philadelphia. (London—J. A. Churchill.)

While primarily aimed at the education of military surgeons, this little book of nearly 300 pages carries a large fund of information for the general reader, embodying statistics and deductions omitted in texts ordinarily current on Hygiene. The personal, barrack and company life of the soldier is taken up from every sanitary viewpoint and both conditions and remedy find excellent discussion. Altogether a book with a place.

DYER.

Arterio-Sclerosis; Etiology, Pathology, &c. By LOUIS M. WARFIELD, A. B., M. D., with an introduction by W. S. THAYER, M. D. C. V. Mosby Medical Book Co., St. Louis.

This monograph carries about 150 pages of argument for a better appreciation of what its title conveys. A full and able discussion of the pathology is presented and etiology is well detailed in a carefully prepared list of factors—*causæ morbi*. The illustrations are few, but good. A temperate view of treatment is given and the reader finds a full summary of accepted doctrines as well as remedies.

DYER.

A Handbook of Suggestive Therapeutics, Applied Hypnotism, Psychic Science. By HENRY S. MUNRO, M. D. Second Edition. C. V. Mosby Book Co., St. Louis.

A noteworthy book, in which the personal equation of the author is intensely injected. The ingenious method of a conversational treatment of what pretends to be a text is novel and really is the strongest feature of the book. Its usefulness as a guide to students in and out of school might be open to question.

DYER.

Diseases of the Skin and the Eruptive Fevers. By JAY FRANK SCHAMBERG, A. B., M. D. W. B. Saunders Co., Philadelphia and London.

For the student or practitioner who wishes ready reference to the essentials of Skin Diseases and a brief discussion of the evidences, pathology and treatment of such, Dr. Schamberg's work on the Skin must be an excellent text. The illustrations are numerous and good and the practical way the author presents his material must be popular. As a reference work, for authoritative opinion, it, of course, can have small place, nor is the claim for any more made, as the text runs. The arrangement of its material is that, in the main, followed by most texts written in English, but succinct style with no superfluous discussion is the striking feature.

When it comes to the discussion of the "Acute Eruptive Fevers," more may be said. Dr. Schamberg has had wonderful opportunities to study this class of cases, and the text shows his good use of such opportunities. The presentation of smallpox, vaccination, chicken pox and scarlet fever is modern, clear and fully instructive. More than this, much of this work is all that any one may need to know of these diseases from the standpoint of the practitioner and for their diagnosis and treatment.

The illustrations in this part of the book, like those in the Dermatological section, are excellent. Dermatol-
DYER.

A Manual of Diseases of the Nose and Throat, by CORNELIUS G. COAKLEY, M. D. Lea & Febiger, Philadelphia.

This is the fourth edition of "Coakley's Nose and Throat Book," with the text carefully revised and the subject matter added to in conformity with the present accepted theory and practice. As a compact and practical work designed for the benefit of the general practitioner and medical student the book fulfills its mission and receives our thorough commendation. The illustrations are clear cut and graphic and lend great aid to a thorough comprehension of the text. A valuable addition to the book is the special chapter on Therapeutics—dealing with the medications used locally in the nose and throat. DE R. & K.

The Surgery of the Ear, by SAMUEL J. KOPETZKY, M. D. Rebman Company, New York.

A thorough and comprehensive treatise covering the entire field of aural surgery from the external auditory canal to the brain and meninges. The author has made a survey of the historical and current literature and combined with the deductions from his personal observations and experience has given out a valuable publication to the student of otology.

A historical sketch of the morbid process and its pathology precedes the careful and lucid description of the operative technique to be chosen, the after treatment of the wound and the result to be expected. The text is profusely illustrated with schematic drawings, half tones and colored plates descriptive of the anatomy and surgical procedures. DE R. & K.

Surgery; Its Principles and Practice. In five volumes, by 66 eminent surgeons. Edited by W. W. KEEN, M. D. W. B. Saunders Co., Philadelphia.

Volume IV of this Surgery, on Intestines, Rectum, Hernia, Genito-urinary Organs, Eye, Ear, Military, Naval and Tropical Surgery, is a magnificent work. The opening chapter on Hernia, by W. B. Coley, M. D., is complete and most interesting, especially to railroad surgeons, dealing with the cause, mechanism and observations based on medical jurisprudence.

Chapter LIV., Surgery of Rectum and Anus, by Robt. Abbe, M. D., deals chiefly with the subject and is quite exhaustive, giving all the methods in vogue for operations upon the rectum; the best methods of treatment for ulcers, hemorrhoids and tumors. The cuts and illustrations are all comprehensive and greatly add to the value of the articles.

Chapter LV., Examinations of urine in relation to surgical measures, by David L. Edsall, M. D. Calls attention to the fact that at best, urine tests and examinations are only approximate. The presence of abnormal urine shows evidence of disease, but the absence of abnormal urine is

no indication of the absence of disease. He further discusses the value as well as fallacy of many tests.

Chapter LVI., Surgery of the kidney, the ureter, and the supra-renal gland, by Joseph Ransohoff, M. D. No pains have been spared to keep this chapter up to the standard. It is quite complete, dealing with every phase of the subject.

Chapter LVII., Surgery of the Bladder, by Bransford Lewis. This chapter is what might be expected from such an authority. The chapter begins with the introduction of sounds, giving valuable hints that would be most profitable to many surgeons; discusses at length the use and importance of the cystoscope in the diagnosis of vesical, ureteral and kidney diseases. Malformation of the bladder, tumors and all injuries and accidents which might occur, and discusses and illustrates the methods of surgical treatment with appropriate operations.

Chapter LVIII., Stone in the Bladder, by Arthur Tracy Cabot, M. D. In this chapter are discussed the physical and chemical characteristics of stone, constitutional characteristics as well as diet and habit in their production.

The symptomatology, diagnosis and treatment are discussed. The methods of diagnosis and the best methods of procedure in the treatment of various forms are also discussed. The various operations are described and the cuts aid materially in illustrating the various instruments and methods of operation.

Chapter LIX., Surgery of the Prostate, by Hugh H. Young, M. D. The work of the author in this field is quite sufficient to commend this chapter. The subject is thoroughly reviewed from every phase medically and surgically. The author's methods are clearly described and the text well illustrated.

Chapter LX., Surgery of the Penis and Urethra, by Orville Howitz, M. D. Most interesting and exceedingly instructive; thoroughly reviewed from morbid conditions of the prepuce, to the abnormalities of birth, covering the etiology, diagnosis and treatment and a description of the various operations calculated to give the best results in certain conditions.

Chapter LXI., Surgery of the Scrotum, Testicle, Spermatic Cord and Seminal Vessels, by Arthur Dean Bevan, M. D. This chapter practically covers the entire field, opening with the surgical anatomy and embryology of the organs of generation. Deals also with cancer, with hydrocele and varicocele and injuries to these parts. The author describes fully his well known operation for undescended testicle and all of the most approved surgical procedures to be observed in the treatment of these organs.

Chapter LXII., Surgery of the Intestines, the Rectum and the Anus. Surgery of the Omentum and the Mesentery, by William Van Hook, M. D., and Allen B. Kanovel, M. D. It is refreshing to note that this chapter is opened with an admonition to the student of the importance of first learning something of the anatomy of the intestinal tract and the abdominal viscera, before rushing into abdominal surgery at the risk of the life of the patient. The subject is clearly dealt with in the limited space allotted. The etiology and pathology of surgical conditions is clearly defined and made much clearer by the illustrations accompanying the article. There is no subject today of more importance to the surgeon than a thorough knowledge of the abdominal viscera and the changes wrought by accident and disease as well as the proper course of treatment indicated.

Chapter LXIII., Surgery of the Appendix Vermiformis, by Jno. B. Murphy, M. D. It would have been difficult to have chosen any one more competent to handle this subject. The chapter deals with the

appendix from the earliest conception of its importance as a surgical condition. In his lucid and most convincing style the author discusses the subject from every point. In this day when appendicitis is so common and so serious a condition, every practitioner should be familiar with the subject and the information contained in this chapter alone is worth the price of the volume.

The remaining chapters on Surgery of the Ear, by Edward Bradford Dench; The Eye, by so well known an authority as Geo. E. De Schweinitz; Military Surgery, by Gen. Robt. M. O'Reilly; Naval Surgery, by Surgeon-General P. M. Rixey, U. S. N.; Tropical Surgery, by Walter D. McCaw, M. D., are specialties which I do not feel competent to review, but they seem to be as thorough and as interesting as the preceding chapters.

Finally, Chapter LXIX., by William L. Rodman, M. D., on the Influence of Race, Sex and Age in Surgical Affections, is extremely interesting. The entire volume, written by such well known specialists furnishes throughout the most interesting and instructive reading and adds one more book of the greatest value to the set, which continues to reflect the greatest credit upon the editor and the contributors.

MARTIN.

High Frequency Currents, by FREDERICK FINCH STRONG, M. D. With 183 Illustrations. Rebman Company, New York.

A fully comprehensive descriptive account of the history, development, technic and application of the high frequency current with particular reference to the therapeutic importance of this force.

Unusually well illustrated and exceptionally well written. Must be a standard among texts on the subject.

DYER.

Uric Acid as a Factor in the Causation of Disease, by ALEXANDER HAIG, M. A., M. D. (Oxon.), F. R. C. P., 7th Edition. P. Blakiston's Son & Co., Philadelphia.

The appearance of a seventh edition of this work and in a much more extended form than those precedent argues for the usefulness of this work. The importance of the subject is evident from the 900 and more pages which make the book. While the mass of argument tabulated and presented by the writer of the book is enormous, the text is arranged readably, and long before the book is finished the earnest desire of the author to convince the reader is apparent and felt and the personal pronoun throughout the book is forgiven.

No brief notice can begin to review such a work, which really needs the critic of a broadly trained physiologic-chemist-physician and a philosopher as well to properly present its scope. Really a series of memoirs on all things related to uric acid in the human body.

DYER.

The Principles and Practice of Gynecology, by E. C. DUDLEY A. M., M. D. Fifth Edition. Lea & Febiger, 1908.

It is a pleasure to review a new edition of this most popular work which has for a long time been a standard text book among teachers and practitioners. The author has condensed, rewritten and partially rearranged much of the subject, and has added practically all that is new in gynecology.

The first point of interest in Dr. Dudley's work is the classification adopted. He has preferred to classify the diseases according to etiology

rather than the usual anatomical division, and it must be acknowledged that his results have been quite satisfactory.

Dr. Dudley's name has been so long connected with the advancements in plastic surgery that we always read with pleasure this section of his work. One sentence, appearing in the section on perineorrhaphy, sums up the principles underlying his success as a teacher and surgeon; "***Always individualize each case, find out the lines of the tear, their direction, their length, and then put the fragments back where they were before. He who does this will do a different operation in every case, but he will do no one man's operation. If one of the stereotyped operations in an individual produces a perfect result, it will be not because it has anything like universal adaptation to the repair of an injured perineum, but because it chanced to fit the case."

It is also of interest to know what Dr. Dudley's experience has been with regard to the extension of the operative treatment of carcinoma of the uterus. If the case is operable the chance lies between the radical abdominal operation without the removal of glands on the one hand and igni-hysterectomy on the other. He evidently still thinks favorably of the vaginal route, since the para-vaginal technic of Schuchardt is described at length.

No fault can be found with the illustrations, which have been admirably done and carefully selected. Special mention might be made of those illustrating the value of preserving and utilizing the broad ligaments in hysterectomy and displacement operations.

Dr. Dudley's book maintains the high position of the former editions and no doubt will remain a standard among teachers and practitioners.

MILLER.

Publications Received.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1909.

Text-Book of Gynecological Diagnosis, by GEORGE WINTER, M. D., with the collaboration of DR. CARL RUGE, of Berlin. Edited by J. G. CLARK, M. D., after the Third Revised German Edition.

P. BLAKISTON'S SON & COMPANY, Philadelphia, 1909.

A Text-Book of Genito-Urinary Diseases, Including Functional Sexual Disorders in Man, by LEOPOLD CASPER, M. D.; translated and edited with additions, by CHARLES W. BORMEY, B. L., M. D. (Second Edition Revised and Enlarged).

Surgical Diseases of the Abdomen, With Special Reference to Diagnosis, by RICHARD DOUGLAS, M. D.; Edited by R. A. BARR, B. A., M. D. (Second Edition Revised and Enlarged).

Practical Physiological Chemistry, by PHILIP B. HAWK, M. S., Ph. D. (Second Edition Revised and Enlarged).

LEA & FEBIGER, Philadelphia and New York, 1909.

Progressive Medicine, Edited by HOBART AMORY HARE, M. D.; assisted by H. R. M. LANDIS, M. D. (March 1, 1909).

WM. WOOD & COMPANY, New York.

The Theory and Practice of Infant Feeding, With Notes on Development, by HENRY DWIGHT CHAPIN, A. M., M. D. (Third Edition Revised).

FUNK & WAGNALLS COMPANY, London and New York, 1909.

Parcimony in Nutrition, by SIR JAMES CRICHTON-BROWNE, M. D., LL. D., F. R. S.

W. B. SAUNDERS & COMPANY, Philadelphia and London, 1905.

Atlas and Epitome of Diseases of the Mouth, Pharynx and Nose, by L. GRUNWALD, M. D., of Munich. Edited with additions, by JAMES E. NEWCOMB, M. D.

E. B. TREAT & COMPANY, New York, 1909.

Bacterial Food Poisoning; So-Called Ptomaine Poisoning, by PROFESSOR A. DIENDONNE, M. D. Translated and Edited with Additions, by CHAS. FREDERICK BOLDUAN, M. D.

Clinical Diagnosis and Treatment of Disorders of the Bladder, by FOLLEN CABOT, M. D.

MISCELLANEOUS:

Economical Aspect of Human Life, by PROFESSOR IRVING FISCHER. (Address delivered before the Association of Life Insurance Presidents, New York, Feb. 5, 1909).

The Therapeutics of Radiant Light and Heat and Convective Heat, by WM. BENHAM SNOW, M. D., (Scientific Authors' Publishing Co., New York, 1909).

New and Unofficial Remedies, 1909. Containing descriptions of Articles which have been accepted by the Council on Pharmacy and Chemistry of the A. M. A., prior to Jan. 1, 1909.

Reprints.

Bismuth Paste in the Treatment of Suppuration of the Ear, Nose and Throat, by JOS. C. BECK, M. D.

Toxic Effects from Bismuth Subnitrate, by EMIL G. BECK, M. D.

The Anatomical Basis For Successful Repair of the Female Pelvic Outlet, by IRVING S. HAYNES, Ph. B., M. D.

St. Louis Medical Society Reprint Collection, 1908. The Origin, Purpose and Progress of the Collection, with Annual Report of Library Committee and Other Memoranda.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR FEBRUARY, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	8		8
Intermittent Fever (Malarial Cachexia)	2		2
Smallpox.....			
Measles.....			
Scarlet Fever.....	8		8
Whooping Cough.....			
Diphtheria and Croup.....	2		2
Influenza.....	6	8	14
Cholera Nostras.....			
Pyemia and Septicemia.....	3	1	4
Tuberculosis.....	44	28	72
Cancer.....	14	5	19
Rheumatism and Gout.....		1	1
Diabetes.....	4	1	5
Alcoholism.....	5		5
Encephalitis and Meningitis.....	1		1
Locomotor Ataxia.....	4		4
Congestion, Hemorrhage and Softening of Brain.....	19	4	23
Paralysis.....	2	1	3
Convulsions of Infants.....		4	4
Other Diseases of Infancy.....	13	3	16
Tetanus.....	2	1	3
Other Nervous Diseases.....	1		1
Heart Diseases.....	58	28	86
Bronchitis.....	5	2	7
Pneumonia and Broncho-Pneumonia.....	25	20	45
Other Respiratory Diseases.....	7	6	13
Ulcer of Stomach.....			
Other Diseases of the Stomach.....	8	4	12
Diarrhea, Dysentery and Enteritis.....	12	5	17
Hernia, Intestinal Obstruction.....	2	1	3
Cirrhosis of Liver.....	6	3	9
Other Diseases of the Liver.....	1	2	3
Simple Peritonitis.....			
Appendicitis.....	5	1	6
Bright's Disease.....	31	23	54
Other Genito-Urinary Diseases.....	1	3	4
Puerperal Diseases.....	3	4	7
Senile Debility.....	12	5	17
Suicide.....	4	1	5
Injuries.....	17	22	39
All Other Causes.....	17	18	35
TOTAL.....	352	205	557

Still-born Children—White, 18; colored, 27; total, 45.

Population of City (estimated)—White, 265,000; colored, 97,000; total, 362,000.

Death Rate per 1000 per annum for Month—White, 15.94; colored, 25.36; total, 18.46.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure.....30.16
Mean temperature.....57.
Total precipitation.....5.61 inches.
Prevailing direction of wind, southeast.

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No. 11

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Headaches as a Symptom in Pregnancy and Pelvic Disorders.*

By C. N. CHAVIGNY, M. D., New Orleans.

The subject of headache from a gynecological and obstetrical standpoint is one upon which a great deal could be written, and a great many important points would be omitted; and in the short space allotted I could hardly do such an important subject justice, except, possibly, in a general way. It is therefore my belief that I should consider that phase of the question which presents the most serious symptoms and which sometimes terminates in death. There is no condition to which a woman is liable that is more severe and deserving of attention than the headaches of pregnancy. Everyone of us can look back over our cases and recall at least a few instances where, if headaches had been given proper attention, some lives might have possibly been saved.

It is not my purpose to enter into this subject other than to

*Read before the Orleans Parish Medical Society, February 8, 1909.

present migrain as one of the most important symptoms of albuminuria, the fore-runner of eclampsia and the first symptom we are usually confronted with. The causes of albuminuria of pregnancy are as yet uncertain, although the theory of auto-intoxication is the one most generally accepted. German observers have laid great stress upon the renal changes. Leyden pointed out that degenerative changes in the epithelium of the uriniferous tubules were of such frequent occurrence as to justify one in describing the "kidney of pregnancy" as a pathological entity. Van de Velde demonstrated by experiments upon rabbits that there is an increased toxicity of the blood of pregnant women. The theory of pressure on the kidneys by the gravid uterus, causing a passive hyperemia, which was held by such of the old writers as C. Braun, Rosenstein, Litzman and Mouchke is, I believe, today discarded. J. Whitridge Williams states that his experience has led him to believe that the renal and hepatic changes are due to the circulation in the blood of certain imperfectly oxidized metabolic products with whose exact nature we are as yet unacquainted and that the resulting disturbances of function cause still further retention of the offending substance, thus giving rise to a vicious circle.

Since the theory of auto-intoxication seems to be the one generally accepted, we can readily understand why the nervous system should be the most susceptible to attack, as is manifested by headaches of the most violent character, dizziness, disturbances of vision, etc.

It is stated that albuminuria occurs in 5% to 6% of all pregnancies, although H. M. Little, in an examination of 1,000 specimens of urine taken from pregnant women of Johns Hopkins Hospital, found 50% to contain traces of albumin, and considerable albumin with casts of about 73%. Primiparæ seem more subject, also twin pregnancies; any condition that would cause an unusual enlargement of the uterus, such as hydatiform pregnancy, or excessive liquor is conducive to albuminuria.

Kleinwochter has found a higher percentage of auto-intoxication in primiparæ past the age of 35.

Notwithstanding the number of cases of pregnancy that are complicated with albuminuria, we find not a few cases of serious kidney lesions prior to pregnancy go through gestation without any bad effects. Constipation is a very frequent cause, but headaches

from this source are usually not of a severe nature, and are readily relieved by the use of cathartics. Constipation is often a very obstinate condition to deal with in some cases of pregnancy.

The treatment and prevention of this condition is certainly of greatest importance and is deserving of more attention than time will permit me to give it. In my practice I have made it a rule to examine the urine of every patient under my care every month for the first six months of pregnancy, then every two weeks, three of which specimens at least are microscopically and quantitatively examined. Too much stress cannot be laid upon these frequent examinations, as is so often shown us in our practice, when we are called upon to administer aid to unfortunate women who are in the hands of inexperienced and oftentimes absolutely incompetent midwives. You are too familiar with the test and clinical laboratories are too convenient for me to dilate upon the method of examination. Suffice it to say that with the symptoms of the nervous system above mentioned and the urine before us, no cases of eclampsia should ever occur in our practice.

The treatment should be entirely of a prophylactic nature, unless we see our case too late. The use of diuretics should not have to be resorted to, as free purgation, proper diet, ample flushing of the kidneys with milk and mineral waters, with proper hygienic care and judicious exercise, a normally healthy woman should go through her pregnancy with little or no trouble. Cases will arise where active treatment may become necessary, then diaphoresis and diuretics must be brought actively into use. I have used a steam bath, taken twice a day for about half an hour each time, with very beneficial results. The method of using same is very simple and can be arranged in any house by simply seating the patient on a chair and covering the entire body, excepting the head, with a woolen blanket, being careful that it fits snugly about the neck, with the use of a gasoline stove or alcohol lamp, a water tub and a rubber tube, you can give a good Russian bath. The diuretics in general use are of benefit and are all well known, but I desire particularly to mention the happy results I have had in three cases by the use of calomel, given in grain doses every hour until ten grains were administered, followed the next morning by a saline. I mention this also for the reason that I have seen quite

a number of physicians who were afraid to give calomel in large doses to pregnant women.

A consideration of headaches from a gynecological standpoint is at best very difficult. I believe that women are greater sufferers of headache than men, which we can very frequently trace to their pelvic organs. We find migrain associated as a symptom of neurasthenia and hysterical neuroses so frequently found in gynecological subjects; that these conditions are increasing with the advance of civilization can not be denied, among the poor, the inducing factors being overwork, poorly ventilated quarters and poor nutrition; among the well-to-do, the educational strain, over-indulgence and emotional excitement. Albutt says that neurasthenia is the state in which there is defect of endurance; hysteria that in which there is defect of the higher gift of dominion of mind. The neurotic woman is sensitive, zealous, managing, self-forgetful, wearing herself out for others; the hysterical subject, whether languid or impulsive, is purposeless and selfish. No class of patients can be dealt with in so many different ways and to none has so much harm been done, as when the indiscriminate removal of both ovaries was so frequently practiced in the early days of abdominal surgery. Too much stress cannot be placed upon that ever increasing evil, the cause possibly of more gynecological lesions than any we are confronted with today; to criminal abortion, endometritis, oophoritis and pyosalphynx, which in time usually produces marked neurasthenia with its accompanying symptoms, can be directly attributed.

There is no doubt but that the sclerotic and prolapsed ovaries, displacement of the uterus, stenosis of the cervix, laceration of the cervix and perineum, play an important role. The pelvic organs are so closely connected with the sympathetic system through the hypogastric plexus and the cerebro-spinal system, through the sacral plexus, that one can readily understand the pathology of the reflexes. In cases in which marked neuroses are associated with pelvic lesions, a most careful study should be made, so as to establish the proper relationship between them. We must not allow our minds to become so biased and take the extreme view, thereby misleading ourselves. Thorough examination not only of the pelvic viscera, but of every organ should be made and if need be a general anesthetic used. We should not hesitate to have the advice of

the internist and neurologist before any operation of a serious nature be performed.

The operative treatment necessary for the surgical cases could be properly described here. The use of pessaries in certain classes of displacement is of great benefit; also vaginal applications and the use of hot vaginal irrigation. An important class of cases often the cause of headaches of the most violent type and, owing to the age of the patient, we are confronted with difficulties in its treatment, is the dysmenorrhea of young ladies entering and in the first years of maturity. In these cases a general tonic with a change of environment is often very beneficial without any recourse to surgical procedure.

The treatment of that class of cases due to beginning and ending of sexual life, is one that is met with very frequently in every-day practice and which is so often accompanied by nervous disturbances.

The dysmenorrhea, so often accompanying the earlier days of menstruation, is frequently associated with severe headache, as well as backache. Change of environment, with judicious use of tonics, proper diet and purgation, cold hip bath and putting the patient to bed at the menstrual period, is very beneficial. It is very rarely necessary to subject this class of patients to a vaginal examination, which would serve very little purpose and probably make our patient worse. The menopause, be it artificial or natural, is one of the most distressing disturbances that we are called upon to treat. The hot flushes, palpitations of the heart and severe headaches, are symptoms which are very difficult to arrest, and very often run their course to be relieved only by time. Proper dieting, exercise, attention to the excretion, with the use of sulphate of strychnin in 1-30 grain doses every four hours, I have found to be very efficacious. Extremely nervous and restless patients should be given bromide in some form. I prefer the solution of bromide of strontium in $5\frac{1}{2}$ dose every four hours. The use of ovarian extract in 5-grain doses three times a day is one of the few remedies that seems to benefit this condition. Whatever be our treatment, we should avoid as much as possible the use of opiates and the coaltar products, as we are dealing with an easily influenced class of patients.

Nasal Causes of Headache.*

By ARTHUR I. WEIL, M. D., New Orleans.

Only a few months ago I read a paper on the same subject before this society, and when asked at rather short notice to participate in this symposium and to discuss headache, with especial reference to those of nasal origin I decided that I could not do better than give a short resume of the former paper. It is presented at the present time simply to round out the evening's discussion; for a consideration of headaches would certainly be far from complete, which did not contain at least a passing mention of the nose as a prolific source of headache. Let this be my excuse for appearing before you again at so short an interval with a "twice told tale," also for a brevity on an important subject, although, however, on account of the number of speakers this evening it may not be altogether undesirable, referring those especially interested to my former paper, which appeared in a recent number of *THE JOURNAL*.

It is only recently that the nose has come into its own as a recognized cause of headache. In former years all the other organs were investigated and other functions tested and yet the source of the headache in many cases still remained a mystery. A nasal cause was never suspected, nor indeed the nasal status investigated for the very obvious reason that many morbid conditions of the nose manifest themselves exclusively through subjective and reflex symptoms in parts distant from the nose as¹ for instance in headache, asthma and in some cases even menstrual disorders, while there is no symptom directly referred to the nose, no localized pain, no occlusion and no discharge. This explains the many cases of nasal headache that in former years went the rounds from massage to mud bath, from gynecologist to neurologist without relief, but who are now early referred to the rhinologist for at least a tentative investigation. Purely nervous headaches, though they doubtless occur, have materially diminished in number since the nose is recognized as an undeniable etiological possibility.

Various anatomical facts, which I need not here describe in detail, especially the widespread ramifications of the fifth nerve, which is the chief source of innervation in the nose, sufficiently explain the occurrence of nasal headaches.

*Read before the Orleans Parish Medical Society, February 8, 1909.

Three different classes of nasal disease each cause headache, and each by a different mechanism. First those diseases attended with nasal occlusion, swelling of the turbinates, polyps or any nasal obstruction which entails improper nasal respiration and mouth breathing. These cause their unpleasant symptoms by the resulting imperfect oxygenation of the blood and by disturbances of the blood and lymphatic circulation at the base of the brain in close juxtaposition to the parts. Adenoids form an important proportion of this class and though, properly speaking, they are not to be classed as a nasal disease at all, their limit being confined to the nasopharynx, especially its vault and never extending into the nose itself, yet their evil results are largely due to an impairment of nasal respiration, and for the sake of completeness they receive here a passing mention.

The second class are deformities or disease which cause pressure of the parts one against the other, such as deflections and spurs of the septum, hypertrophied turbinates, especially those cases of middle turbinate hypertrophy where the turbinate is jammed up against the septum, causing a considerable and constant pressure. Any one who has had to wear a packing in the nose for a few hours, to control hemorrhage or for other reason, and who experienced the discomfort caused by this transitory pressure, can well understand how such a pressure, even though slight, if long continued, can give rise to the most annoying and persistent headache. The chief offender in this respect is the middle turbinate, which from its configuration, lies in many cases close to the septum, so that a comparatively moderate hypertrophy, too slight to cause symptoms of occlusion or impairment of respiration results in a distinct pressure against the septum with consequent headache. Deflections of the septum, especially of the upper part, for a similar reason often give rise to headache as the only symptom.

The third class of nasal disease which bears headache in its train are the various affections of one or another of the accessory cavities. This is by far the most common cause of nasal headache and be the cavity affected the antrum, frontal sinus, sphenoid or ethmoid, the headache, though sometimes quite characteristic in type and location, never indicates with certainty just what cavity or cavities are involved. A careful and sometimes repeated rhino-

logical examination is necessary to make out with certainty the location and extent of the inflammation.

While on the subject of the accessory cavities, I cannot refrain from repeating Hajec's warning that no headache following influenza should ever be declared neuralgic, as has so often been done in the past, until a thorough examination of the sinuses has proven them to be unaffected. Hajec in his large experience, has never seen a post grippal trigeminal neuralgia that did not rest on a basis of sinus inflammation. This is possibly a somewhat exaggerated view, but certainly when we remember the great tendency of the sinuses to become involved in influenza infections we must at least concede that a seemingly simple neuralgic headache following grippe is to be regarded with decided suspicion until the status of the sinuses has been investigated.

Another pathological condition of the nose which does not properly belong in either of these classes, but which is most closely allied to the first is hay fever, or as we have it very frequently in this part of the country a vasomotor rhinitis, due to some other irritating cause than the pollen irritation of true hay fever. It frequently causes headache, partly by occlusion and impairment of nasal respiration, partly by pressure on adjacent structures and partly, I believe, by the extreme irritability and hyperesthesia of the mucus membrane.

Rhinoliths and foreign bodies cause headache either by pressure or by a continual irritation of the parts. A rhinolith may exist in the nose for many years without headache or other unpleasant symptoms, but a foreign body as a rule in a comparatively short time will make itself known either by a pressure headache or by setting up a purulent rhinitis which may extend into one or more of the sinuses and so cause the headache.

It is unnecessary to mention in detail tonight the various diseases and pathological processes in the nose that cause headache, nor the type which characterizes each, and I shall limit myself to the statement that a large majority of the morbid conditions in this region can under certain circumstances give rise to headache of one sort or another. Their especial significance and management lies more strictly in the province of the rhinologist.

As to the character and location of the headache due to pathological changes in the nose, little need be said. There is nothing

characteristic either as to the region of the cephalgia or the form which it assumes. Only in a very general way can we associate any particular type of headache with a corresponding nasal lesion. The pain may exist anywhere from the forehead to the occiput, from the temple to the bridge of the nose. It may manifest itself either as a dull persistent ache, as an uncomfortable sense of pressure, or it may be the most excruciating, cutting or stabbing pains in various regions of the head. The chief thing to remember is that the nose is a very common source of headache, and that no unexplained headache should be declared functional or nervous or neuralgic until a thorough examination of the nose and its cavities has proven that the offending cause is not to be found there.

Headaches of Organic and Constitutional Origin.*

By ISAAC IVAN LEMANN, M. D., New Orleans.

Some one has said: "In proportion to the amount of suffering inflicted on humanity by headaches it has been less studied and more treated than any disease in the category." This symposium might properly be termed a plea for thorough-going, conscientious differential diagnosis. Proper therapy of a symptom like headache, whose causes are so manifold, must necessarily be based upon a clear understanding of the etiological factors. Our failure to investigate thoroughly each case of chronic headache is responsible for the tremendous abuse of coal tar derivatives in the form of headache powders, wafers and the like. He who groups all headaches together without distinction, to whom a headache is a headache without regard to cause, most naturally reaches for a specific good to cure them all. Many text books on diagnosis attempt to make a difference between headaches of different origin on the basis of their location. While I would not attempt here to controvert the exactness of the observations set forth, yet I do deprecate the idea they give (perhaps unintentionally) that the differential diagnosis is to be based chiefly or primarily upon the location of the pain in the forehead, temple, occiput or vertex. The patient with chronic or frequent headache calls loudly not only for a complete physical examination and a searching inquiry into his history, but also often for clinical examinations of urine, blood, sputum,

*Read before the Orleans Parish Medical Society, February 8, 1909.

etc. Not the eyes alone, nor the nose, nor pelvic disorders cause headaches. Not until heart, lungs, kidneys, liver, stomach, blood have been investigated may we conscientiously say we are in a position to make a proper diagnosis by exclusion.

One of the commonest and best known causes of headache is disease of the kidneys. So common is it that we should never overlook the examination of the urine, even where the discovery of some reflex from eye, nose or pelvis may lead us to think we have discovered the probable cause. Nephritis may be the true etiological factor, the other simply a coincidence; or vice versa. Renal headaches may be explained in several ways. They are probably for the most part toxic, that is uremic in nature, due to faulty elimination of waste products. They often occur as one of the early symptoms and constitute an important warning signal for the institution of a proper regimen. Indeed, chronic headache (without other discoverable cause) plus hypertrophy of the left ventricle (without intrinsic cardiac disease) plus accentuation of the second aortic sound plus stiffened arteries is quite sufficient to make a diagnosis of chronic nephritis even where we fail to find albumen or casts. These headaches may also be due not to the retention of poisonous matters which act directly upon the central nerve cells, but to the retention of substances of the character of adrenalin which raise the blood pressure; or indeed not to a toxemia at all, but to the usual concomitant arteriosclerosis and its high blood pressure. For it is thought that in the changes of blood pressure we may probably look for the explanation not only of renal headaches, but also of those of various other origins.

Leube², for instance, says that headaches may be dependent upon changes in the circulation and in the blood pressure in the cranium. His idea seems to be that such diseases as chronic valvular diseases of the heart, myocarditis, emphysema, obstinate constipation and arteriosclerosis cause a venous brain hyperemia and this in turn a change in the intracranial pressure. Leinhartz³ (quoted by Krehl) "has shown that the headache and dizziness of chlorosis are associated with an increase in the subarachnoid pressure." Fox⁴ says: "The state of the arterial blood tension is an important factor in many forms of headache. Increased tension is the rule, but there are some well marked types of low tension headaches." Again it may be not continuous high or low

tension which is responsible, but a rapid change from the one state to the other. Collins¹ suggests that "the administration of many substances or factors causing a rise in blood pressure which is not long continuous, and followed by depression, is apt to be followed by headache as an after symptom; and in this way are to be explained the headaches resulting after indulgence in diffusible stimulants, a condition which occurs so frequently after a champagne excess. Fever and excitement and mental irritants in general cause headache in a precisely similar manner." Now that instruments of precision for the determination of the blood pressure are coming into more general use, it will be possible to study the various forms of headache in this connection and to ascertain the truth or falsity of these ideas. This in turn may lay a logical foundation for therapeutics.

Arteriosclerosis may cause headache by causing a local anemia. Just as we have a spasm of a peripheral arteriosclerotic vessel; as for example in intermittent claudication, so too we may have a spasmodic local cerebral ischemia. In organic heart disease when the heart muscle begins to fail there is probably an insufficient supply of arterial blood to the brain, and in consequence an insufficient oxygenation of the brain cells. The various forms of anemia and blood dyscrasia, including chlorosis, are characterised by frequent headaches, which might be accounted for also in the manner just indicated, namely that the oxygenation of the brain cells is insufficient because of the impaired oxygen bearing quality of the food.

Headache associated with gastro-intestinal disorder is well known. According to Billings⁵, "organic disorder of the gastro-intestinal tract probably does not primarily cause headache" when headache is due directly to stomach disease it is probably because the antiseptic power of the acid gastric juice has been interfered with. The stomach has been termed a great protective organ because it prevents the decomposition of the food, so that where, on account of disease there exists no longer this inhibitory influence of the normal gastric secretion, decomposition and fermentation do take place with probable consequent absorption of toxic material. Headache is the resultant expression of this toxemia. Of this we have no proof nor have we proof that headaches of in-

testinal origin may likewise be toxic in nature. Bouchard and his school would advance the frequency of such headaches as one more argument in favor of their theory of auto-intoxication. The clinical evidence of the value of purgation would seem to a certain extent to bear out their claim. For the present, we must content ourselves with the empiric observation that headaches do frequently occur in close association and apparent etiological connection with organic and functional disorders of the stomach and intestine (especially chronic constipation) and that they are relieved by measures directed primarily to the relief of the gastro-intestinal condition. One thing, however, is to be borne constantly in mind. Headache and gastro-intestinal disturbance and constipation are frequently equally the expressions of a general condition underlying them all, as for example a neurasthenia, an anemia; or all may be equally due to a reflex from eye, nose, pelvis, etc.

Just how we are to explain the headache of hunger and malnutrition on the one hand and of the over-loaded stomach on the other is not clear. Perhaps it is due in the one case to hypotension, and in the other to hypertension. In connection with the over-loaded stomach we should remember that the liver has certain functions to perform in the final disposition of materials absorbed from the intestine and if these materials are in quantity so large as to be beyond the capacity of the hepatic cells to care for we may expect a toxemia. So, too, in the case of organic disease of the liver itself, the metabolic functions of the organ "such as the storing of carbohydrates, the formation of urea out of ammonium salts, the conversion of toxic aromatic compounds into the comparatively harmless ethereal sulphates"⁶ suffer and toxic substances which would normally be rendered non-toxic in the liver pass into the circulation. Again headache may be a symptom of such a toxemia.

In disease of the lungs, as for example chronic bronchitis, we may find the cause in the repeated hacking cough with the repeated jars, its cerebral congestion, and in the probable rapid changes in the blood pressure on account of the paroxysms of coughing.

Finally, we find headaches in general constitutional dyscrasias such as diabetes, the infectious diseases and syphilis. In the case of the two former we are dealing again probably with toxemias. In syphilis we shall find usually the explanation either in the local

symphilitic lesions—such as gumma periostitis, etc., or in the organic lesions as for example the arteriosclerosis or the gummatous liver.

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- (2) Leube, *Diagnose der inneren Krankheiten* II p. 43.
- (3) Krehl's *Clinical Pathology* (Hewlett) p. 460.
- (4) Fox. *Lancet*, 1897, II, p. 387.
- (5) Billings, *J. A. M. A.*, 1899, XXXXII, p. 760.
- (6) Krehl's *Clinical Pathology* (Hewlett), p. 293.

Headaches Due to Functional and Organic Disturbances of the Eye.*

By HENRY V. BLUM, M. D., New Orleans.

I shall not attempt to say anything of the history of this subject, but shall confine my remarks only to the most important practical facts about this most prolific source of headaches.

In the time allotted to me, I will try to impress upon the members present that almost all headaches, except those met with in acute febrile processes, and especially those coming on with regularity, are due to functional derangements of the eye.

I do not believe that that truth is recognized by the profession today. As one who until recently engaged in general practice, I shall confess that I must have made many mistakes in this regard, not until I had exhausted my own efforts to cure the patient by treatment directed to remedy conditions supposed to exist elsewhere. Failing in this, it might have occurred to me that the eye was to blame. I believe that represents the attitude of most physicians today.

Headaches due to functional disturbances of the eyes may be classified in their last analysis as those due to errors of refraction and accommodative asthenopia, and those due to imbalance of the extra-ocular muscles. Those due to refractive errors are vastly in the majority. A large proportion of headaches attributed to muscular imbalance are dependent primarily upon errors of refraction, for the symptoms of esophoria, exophoria, and other abnormal tendencies are relieved by the proper correcting of the ametropia in these cases.

When we speak of errors of refraction in reference to the eye, we mean that we have to deal with an eye in which, though no disease

*Read before the Orleans Parish Medical Society, February 8, 1909.

may be present, is imperfect optically, or an eye in which the refractive media do not permit of a clear image on the retina without the use of much nervous and muscular energy. It should be understood that even in the normal eye, accommodative effort is required for the clear perception of objects near. In connection with these imperfect eyes, symptoms of accommodative asthenopia manifest themselves when the eye is used excessively, or even without excessive use in the presence of the lowering of the general bodily vitality.

By imbalance of the extra-ocular muscles we mean that there is a deviation from the normal, in which latter condition the movements of the two eyes are in co-ordination, and each eye is so fixed that the object seen has its image projected upon the retina of each eye. In these movements the eyes do not necessarily move the same distance, but they do move in the same plane. In an imbalance of these muscles a deviation of the eyes is not necessarily always present; a tendency of the muscles to deviate the eye already constitutes an abnormality. Either condition may be functional or organic.

The standard or emmetropic eye when at rest is focussed for paralleled rays of light, or infinity. In practice we consider twenty feet as infinity and make corrections in the metropic eye accordingly. This eye must accommodate for any distance less than infinity if it wishes to see clearly, and the accommodative act is a contraction on the part of the ciliary muscle, enabling the crystalline lens to become more convex. The thickening of the lens is on the anterior surface, and along with this there is as a consequence a pushing forward of the iris and a shallowing of the anterior chamber. The same muscle that produces the thickening of the lens produces at the same time by contraction of other fibres a stretching of the choroid. Along with accommodation there is coincident a convergence of the two eyes. Accommodation and convergence are coordinate, but they are not linked together by an inflexible chain. The coordination is only relative, for if it were absolute we would perhaps have diplopia for almost every point except in the median line. The nearer the object is brought to the eye the greater is the accommodation and convergence until a point is reached where images are not clear on one hand and the fusion of these images impossible on the other hand.

The hyper-metric or far-sighted eye does not see clearly at any distance when at rest. When the ciliary muscle is quiet the short eye is focussed only for convergent rays. It emits divergent rays and only convergent rays can focus on its retina. Since convergent rays are not found in nature, the parts of the eye must compensate for this, and this is done by nature's placing a lens on the anterior surface of the crystalline lens. In other words, even for infinity, or practically speaking, for distance further than twenty feet the far-sighted eye has to accommodate to see well. It accommodates every waking moment. Since it expends some of its nervous and muscular force to see far, it has less reserve than the standard eye to see near. It should be noted, however, that the ciliary muscle of the hyper-metrope is thicker than that of the emmetrope and much thicker than that of the myope.

In the myopic or near-sighted eye we see an organ which is focussed for divergent rays of light, and emits convergent rays. No amount of accommodation can make these rays parallel or divergent since accommodation has just the opposite effect. Its far point must be comparatively close because it is here where these rays, if traced back, would converge. The condition of myopia then requires something to make parallel rays of light divergent in order to see clearly, and we do this artificially by placing a concave lens in front of the eye. The myope accommodates only for the purpose of seeing objects inside his far point, and, therefore, we would expect him to complain less from of accommodative asthenopia than the hyper-metrope or the emmetrope.

Astigmatism is the condition produced by an unequal curvature of the cornea or lens, and has as a result an imperfect retinal image, blurred and indistinct. While astigmatism is usually congenital or inherited, it may also be acquired either by disease of the front part of the eye or disease of the posterior segment. (Some authorities think that astigmatism against the rule is occasionally due to the habit of reading in the recumbent position.) Astigmatism may be simple or compound. Simple astigmatism occurs when one meridian only is far-sighted or near-sighted, and compound astigmatism when both meridians are ametropic, but one more so than the other, though both are either myopic or

hyper-metropic. In mixed astigmatism, there is myopia in one meridian and hypermetropia in the opposite meridian.

Anisometropia is that condition in which there is a different refraction in each eye. Antimetropia is that condition in which the refraction of one eye is of the opposite variety to the refraction of the other.

Presbyopia is characterized by receding of the near point. In the process of growing old the crystalline lens becomes less elastic and accommodation is lessened thereby. Usually about the age of 45 or earlier in far-sighted eyes there is required the use of a lens placed before the eyes to enable one to perform close work satisfactorily and with comfort even in those whose vision for distance may be normal or nearly so. This use of glasses is postponed as a rule by the patient until he experiences symptoms of asthenopia. (This I suppose may be attributed to vanity.) The myope becomes an apparent presbyope later than the emmetrope on account of his reserve accommodation and because of the optical condition present in myopia. We sometimes have people to say with great pride that their father or grandfather could read at 70 without the aid of glasses. This simply means that the old gentleman was near-sighted. Occasionally, however, we meet with those who are far-sighted in one eye and near-sighted in the other, and they can, therefore, see well at a distance and for near, though beyond the usual age of presbyopia.

Patients who suffer from asthenopia on account of errors of refraction, complain as a rule of some form of headache, although some of them have no headache whatever. These latter come to the specialist for relief from other reflex symptoms. It often falls to the lot of the oculist to cure by proper fitting of corrective glasses, obstinate cases of indigestion, biliousness and insomnia. Some faddists add to this a long list of other abnormal conditions amenable to this curative method. I was myself promised a cure in this way for a slight deafness.

Headaches due to errors of refraction and muscular imbalance as a rule follow excessive use of the eyes, and more especially that of prolonged near work. An unusual use of the eyes long continued is often followed by headaches. Especially liable to suffer are those who are compelled to use their eyes for fine sewing, or bookkeeping or other similar work. This close work is often done

with the aid of poor illumination, both as to quality of light and direction of light. Reading in the recumbent position produces congestion of the parts, and beside this it is difficult for one to place the book in such a position that it will not necessitate unusual efforts of the muscles of the eye. Reading in a moving vehicle is probably bad for the eyes because of the constant accommodative efforts required to see the lines clearly.

The headaches are sometimes general, but more often limited to special localities, frontal, temporal, peri-orbital, post-occipital and vertex. Migrain or hemicrania is said by some to be often due to refractive error or aggravated by its presence. I have frequently seen vertex headaches relieved by corrective eye glasses, though I saw while in the clinics up North, an eminent ophthalmologist often refer female patients to the gynecologist as soon as they localized their headaches in the vertex.

It is a peculiar fact that it is not necessary for a great refractive error to be present for the patient to suffer much discomfort. It is often noted that those who have large errors of refraction complain severely after they have been given glasses. They frequently say that they are more uncomfortable than before. If we examine the eyes again and refract more carefully we are apt to find that there has been a slight error, or something overlooked, and with the new glass they will probably be satisfied. This occurrence is undoubtedly due to our having made the patient see too well for his own comfort. The sensibility of the retina has been heightened. We see then that those complain most whose sight approximates the normal, and indeed, in some cases they see even better than the standard of normal vision. We can tell these people that they suffer because they see too much. Those in whom refractive conditions make it impossible to see well do not make the effort and are therefore comparatively free of pain from this source.

Hypermetropia is responsible for more asthenopia than any other kind of refractive error. This is due to the fact that the hypermetropic eye is the one most common in man, and also to the almost incessant accommodation necessary in every day life. Asthenopics complain that the eyes burn and ache after close work and reading is difficult. The letters run together and the eyes soon tire and drowsiness comes on. Prolonged close work brings

on headache. Reading at night often brings on headache in the morning.

I wish to say here that accommodative asthenopic symptoms are the same in all varieties of error of refraction, and what I have said above is true of all cases requiring glasses for the correction of optical defects. Myopes, though, do not complain of headaches unless the myopia be high and only then after long close work, because there is not the proper relation between accommodation and convergence. Myopes come to an oculist usually because they do not see well at a distance. Mixed astigmatism produces symptoms similar to those of hypermetropia, and so does myopic astigmatism, although the latter does not give as much discomfort, especially when the astigmatism is with the rule hypermetropia or mixed astigmatism. In astigmatism with the axis vertical in hypo-metropia, or horizontal in myopia we find patients more amenable to treatment than those who accept cylinders otherwise placed. When astigmatism is oblique or against the rule or when the cylinders in the two eyes are not symmetrical we can expect and do find more trouble. Anisometropia and antimetropia are conditions also that require patience both on the part of the doctor and patient.

Frequently we have our patients uncomfortable after all possible efforts. In these cases presenting optical errors sometimes and sometimes not, muscular imbalance sometimes, and sometimes not, there is present an irritable retina, often due to excessive use, but which may be dependent upon some general disease that manifests itself in the eyes. These are the so-called cases of reflex asthenopia. Retinal neurasthenia is also a condition frequently met with and probably closely akin to the condition just mentioned. In neurasthenia, however, characteristic symptoms are seen elsewhere, and if we examine the field of vision in this class of patients, we will probably find the fatigue field.

Presbyopes make up quite a large percentage of the practice of every oculist, and they come because they have headaches which supervene after reading, writing or sewing. They are unable to do any kind of close work for a long time without suffering asthenopic symptoms. Occasionally they complain of nervousness, insomnia or indigestion. When due to presbyopia the symptoms are relieved by the proper glass for near work.

That condition of muscular imbalance in which there is a tendency of the eyes to turn in is called esophoria, and that tendency to turn the eyes out is called exophoria. Hyperphoria and hypophoria explain themselves. Any of these states may be due to functional as well as to organic disturbances, and is frequently the cause of headaches. The desire for binocular fixation and binocular vision calls forth an extra nervous and muscular effort, and this struggle against the abnormal tendencies produces the reflex symptoms: headaches, dizziness and nausea. Of these conditions esophoria and hyperphoria are most often accompanied by headache. The muscular imbalance is very often dependent upon errors of refraction, however, and is then amenable to treatment in that way. Occasionally these conditions require further treatment, nerve tonics, prism exercise, the wearing of prisms, and operative measures upon the muscles. The part played by the extra-ocular muscles in the causation of headaches is not always clear. When I was in New York it was my good fortune to be associated with a great man who devoted much time and attention to this work, and he attached great importance to its part in asthenopia. When I went to Philadelphia it was my good fortune again to be allowed to work with an equally great man, who paid very little attention to the different 'phorias. It is an undoubted fact, however, for which there is much anatomical and physiological reason, that they are often the cause of headaches, and some of them are extremely difficult to relieve.

The muscles concerned in esophoria and exophoria are the interni, superior and inferior recti, super, oblique and inferior oblique, smaller. In esophoria there is an over-stimulation, and in exophoria a relaxation of these muscles. This classification, of course, refers only to the functional varieties, and not to those due to paralysis of the muscles. In the functional imbalances the accommodation is often to blame for the asthenopia, for there is a loss of relation between accommodation and convergence. There are so many complex conditions possible in these imbalances that in a paper of this sort it is impossible to deal with them all. Cyclophoria is a condition discovered by Savage in which there is supposed to be a disturbance of the oblique muscle, which he corrects by exercise with cylinders, preferably convex cylinders.

Before I speak of the organic diseases of the eye I wish to say

a word about opticians and their work. After glasses are prescribed for any condition it is of the utmost importance that they should be properly made and properly adjusted. Indeed, unless the optician does his work carefully we are helpless to relieve accommodative and muscular asthenopia. It is the duty of all patients to return with the glasses to his physician before wearing them, and even later, when anything has happened to his eye glasses, he should always have them examined again before using them. If pharmacists make as many mistakes in filling our prescriptions for drugs as opticians make for glasses, it may explain why our results are often unsatisfactory.

Headaches due to diseases of the eye:

Inflammations of any part of the eye, or growths in any part, is capable of producing headaches. Therefore, I will do little more than name the most important.

Inflammations of the eyelids, stytes, and chalazia.

Inflammations of the iris and ciliary body, episclera and sclera, choroid and retina.

Inflammations of the optic nerves.

Glaucoma.

By far the most important of these organic diseases, because it is more often overlooked, is glaucoma. Glaucoma is a disease almost peculiar to hypermetropes. Myopes rarely have glaucoma. The frequency of this disease in the far-sighted eye is no doubt due to the fact that the eye is a small one. The cornea is small, the chamber is shallow, and the ciliary processes are large. There is a disproportion between the size of the lens and the front part of the eye.

The tendency to have glaucoma is peculiar to some families. It is especially liable to occur in neurotic individuals, and is more often seen in Jewish patients. The cause of simple primary glaucoma is in an unsettled condition, but it is probably due to any one or two of several factors. We do know that the damage done to the eye is due to an increased intra-ocular tension, and the cause of that tension is, of course, the cause of glaucoma. The anatomical construction of the hypermetropic eye is the explanation in some cases, and by some the increased tension is considered to have a positive connection with arterio-sclerosis. The immediate cause of the increased tension is a loss of relation between inflow and

outflow, the canal of Sclemm in the anterior chamber of the eye not being competent to fully perform its duty of drainage.

Glaucoma is more often overlooked than recognized by the general practitioner, and the patient in some cases applies for relief when the optic nerve is almost destroyed. It often happens that the specialist is confronted by a patient of this sort who does not realize that her eye is blind, or nearly so. Occasionally they are blind in one eye and do not know it, and come to the oculist because the sight in the other eye is failing. *Simple* chronic glaucoma is a very insidious disease, and usually produces no other subjective symptoms but blurred, indistinct vision. There may not be increased tension at the time of our examination, but there is at some time. The anterior chamber is usually shallow, but in some cases it is not so. I wish to say, parenthetically, that I am referring to the so-called idiopathic glaucoma, primary, and not to that type due to other pathological conditions, the secondary glaucoma.

In *acute* and *sub-acute* glaucoma there is often severe headache, pain in the temple and in the supra-orbital region. This is accompanied by nausea, and sometimes vomiting. During the attacks the eye is usually red, pupil slightly dilated, and anterior chamber shallow. The tension of the eyeball is greater than normal, and this can be made out by a comparison with the tension of the healthy eye. The sight is dim and the patient will say he seems to be looking through a veil. Sometimes patients define the sight as cloudy or steamy, and if they look at a light they will state that there is a ring around the light in which are represented all the colors of the rainbow.

Physicians are not always to be blamed for the non-treatment of these conditions, because sometimes patients do not call in the family practitioner, but treat the headaches themselves.

Not enough attention has been paid to the study of glaucoma in our medical colleges, and this is probably because not enough time has been allotted to the professors of diseases of the eye. This has been corrected at our medical college here, and, henceforth, if a student graduates at Tulane without being able to recognize glaucoma, the fault will not be that of the men teaching ophthalmology there now. If the professors are here to-night I will ask them to

emphasize the importance of glaucoma, since I have taken up too much of your time already.

I wish to say only one more word about glaucoma. If a patient, especially a woman of fifty or more, and of the Jewish faith, often presents herself to her family practitioner for a severe unilateral headache resembling migrain, and coming on after emotional excitement, it is his duty to examine the eye of the corresponding side. He should examine the reaction of the pupil and the tension of the eyeball by a comparison with the other eye. It may be difficult for the inexperienced to determine a slight increase in tension, but, should the examiner find that the pupil is sluggish in its light reaction, and slightly dilated by comparison with that of the other eye, he should see that the patient receives the attention of the specialist at the earliest possible time.

Headaches as a Symptom of Disease of the Nervous System.*

By R. M. VAN WART, M. D., New Orleans.

The occurrence of headache as a symptom of disease of the nervous system is so well known that it is hardly more than necessary to mention the various types and the means of recognizing them. While headache is also a common symptom of various other disorders, there is no criterion by which to judge the cause, except the most searching physical examination. It is more by a process of exclusion than by any other means that we reach conclusions; this is particularly true of the type of headache found occurring in the functional neuroses. More errors are likely to be made from lack of examination than lack of knowledge. The knowledge gained by experience of the relative frequency of individual causes is of very great value. An experienced physician is usually able to eliminate these common causes before looking for the more unusual. In the examination in general of any nervous patient, before considering the headache to be due to some disorder of the nervous system, a careful history should be taken and a careful physical examination of the internal organs should be carried out. If, after this has been done, the cause has not been ascertained, a careful examination of the nervous system for organic symptoms

*Read before the Orleans Parish Medical Society, February 8, 1909.

should be undertaken. The examination of the patient's mental state should be carried out, and a conclusion can then be generally reached as to the character of the symptom which we are dealing with or to the disease which is the cause of it. As headache is such a common symptom of organic brain disease, the character of this form should be considered first. Disorders of the skull which cause headache are infrequent; but, when they occur, it is usually due to disease of the periosteum, the result of an injury, a local infection or syphilis. These headaches are usually local, and are rendered worse by pressure, and are easily differentiated. Diseases of the dura mater may give rise to headache; and of these the most common is that known as pachymeningitis, hemorrhagica interna; this may result from injuries to the skull or as a complication of dementia paralytica, Bright's disease, etc. Disease of the venous sinuses may also give rise to headache, the most frequent being the result of an infection of the middle ear. This headache is diffuse, sometimes in the region of the forehead, sometimes in the occiput, and only rarely unilateral. Diseases of the meninges, such as meningitis, which may be due either to meningococcus or to the tubercle bacillus, give rise also to diffuse and severe headache. The accompanying symptoms are usually sufficient to enable one to make a correct diagnosis. Occasionally, leptomeningitis may give rise to a severe headache. Cerebral syphilis is one of the most frequent causes of headache. All of the various forms give rise to severe pain, whether meningitis, periostitis, endarteritis, or gumma. This headache is very severe, keeping the patient awake at night, and varies with the nature and severity of the lesion, and is not relieved by any drugs, even morphine, but quickly subsides under the energetic use of iodine and mercury. The headache of cerebral tumor is very similar; it may be local or general. It may be the only symptom or it may be one of many present; it may be remote from the position of the tumor or close to it. Frontal lobe tumors may give rise to pain in any part of the head, and tumors in the cerebellum may give rise to pain in the frontal region. The headache may be absent at times, occurring in attacks; at the times of these exacerbations, the pain may be so severe as to render sleep impossible. In certain instances it is rendered worse by alcohol. Drugs have little effect on this pain, and the only certain means of its relief is by lumbar puncture, a rather dangerous and uncertain

measure, or a decompression operation. The headache of brain abscess is similar to that of brain tumor, except that it is severe from the beginning, and not subject to the same exacerbations and remissions, though these may occur in chronic cases. The treatment is operation. Hydrocephalus may also give rise to headache. This may result from an increase in the fluid in the surface of the brain or due to acute hydrocephalus as a result of the disturbance of the ventricular circulation occurring in the course of the meningitis; rarely a blocking of the aqueduct of Sylvius may be the cause. No other form of headache is quite so frequent as that seen in head injuries. This may exist for a long period of time, and is probably the result of a circulation disturbance. It seems to be best relieved by rest in bed.

The functional neuroses, under which heading are included neurasthenia, hysteria, and psychasthenia, and the so-called traumatic neuroses, very frequently give rise to headaches. Most of the patients suffering from neurasthenia complain of this symptom. The headache is often described as a pain or as a pressure, sometimes as a sensation of fulness, at other times as that of a helmet pressing on the head. Most of these headaches are rendered worse by mental or physical fatigue; some are relieved, others made more severe by alcohol. Some bear a more or less definite relationship to meals, the condition of the bowels, etc. In the treatment of such a condition, the importance of the individual factors must be estimated and the treatment directed accordingly. In some instances, frequent small meals, others exercise in fresh air, others attention to sleep, in others regulation of the mental work by means of slight pauses, very often hydrotherapeutic measures give relief; in some instances electricity is of value. In some instances these headaches are so severe as to prevent the patient from working. In these cases it may be necessary to temporarily utilize some of the coal-tar preparations to convince the patient that the headache can be relieved; morphin should never be utilized. In these patients, the careful examination of the eyes, ears, nose, throat, as well as the accessory sinuses of the nose; the teeth should never be neglected. Certain patients require the correction of the anæmia in addition to the general treatment. The hysterical form of headache is as frequent as that in neurasthenia. It may be a frontal headache, or a pressure inside of the skull, or a sensation of a nail

being driven into the skull. Very often, painful points can be found—in some instances, hyperesthesia of the whole scalp; sometimes these pains simulate neuralgia of the occipital nerve, and, when accompanied by stiffness of the neck, may simulate meningitis. The treatment is by suggestion and the other methods utilized for the treatment of hysteria in general.

Headache is a frequent symptom of the traumatic neuroses; its character is similar to that seen in neurasthenia and hysteria, and the outlook is good. Prophylactic treatment may be of value by placing nervous patients under immediate care, with the idea of preventing these symptoms. Just here may be considered the very severe headache which occurs in patients otherwise well, accompanied by redness of the face, pulsation in the carotids, occasionally edema. This headache has been variously spoken of as vasomotor, has been attributed to congestion of the brain or paralysis sympathetic. It usually occurs in neurotic individuals and usually yields to the treatment found of value in such cases.

Another cause of pain about the head is a neuralgia of the trifacial and great occipital nerves. The pain in these instances is at first limited to the distribution of the nerve affected or to one of its branches, and is usually of a paroxysmal, shooting character. Pressure over the points of exit of these nerves gives rise to pain distributed over the distribution of the nerve. The pain usually occurs in attacks, but it may be continuous. It is well to remember that pains of this character may be only symptoms of the onset of an infectious disease, or due to some other disorder. Neuralgias of this character are not infrequently seen in dementia paralytica and tabes dorsalis. The treatment is very unsatisfactory, and it may be found necessary to resort to one drug after another until something is found to relieve it. Hydrotherapeutic measures, electricity, have all been utilized, as well as the major and minor surgical measures. In this connection it is well to remember that arthritis of the cervical spine may give rise to occipital neuralgia of great severity and often intractable to treatment. It is easily differentiated by the symptoms of spinal disorder, such as stiffness, creaking, and the presence of this disease elsewhere. The treatment is that of the arthritis. Headache is a common symptom in acromegaly, and is usually the result of pressure symptoms in the tumor of the hypothesis. It is important to carefully distinguish

between headache and the result of the disorders described and migraine. This disease may be, however, a symptom of some other disease. A typical attack is usually ushered in suddenly, mostly in the morning, and may be preceded by some warning, such as flashes of light before the eyes, expanding spectrum, etc. The pain is usually on one side, and may be accompanied by vomiting; the face may be pale or flushed. There may be differences in the pupils; in severe cases, mental disturbance may occur; in others, aphasia. The disease usually commences at an early period and continues throughout life. It is important to remember that the diagnosis should only be made after carefully excluding all signs of organic disease elsewhere. The treatment is first that of the attack, when the patient should be put to bed on a liquid diet and attempts made to relieve the pain by methods at our disposal. Some patients obtain relief from hot applications, others from cold. In these instances, as in all other conditions of pain about the head, no organ should escape a scrutinizing examination, and in the intervals between the attacks attempts should be made to prevent them by treatment of the general condition. Migrain as a symptom occurs in tabes, progressive paralysis, brain tumor, and nephritis, and occasionally in malaria. Headache is a not uncommon prodromal symptom of brain softening or brain hemorrhage. In these instances the headache usually disappears with the occurrence of the hemorrhage or softening. It varies in character, and should always be looked upon with suspicion in patients over 40 years, suffering from arterial disease or chronic kidney lesion.





1. Different types of Casts, cut for flat foot plates.
2. Casts cut for plates designed to support the anterior arch.
3. Cast cut for double posterior flange plates.
4. Showing method of adhesive plaster strapping for the relief of metatarsalgia (note callouses).
5. Osteoarthritic spur on plantar surface of os calcis.
- 6 and 7. Showing correct and incorrect walking and standing postures (Whitney).
8. Method of adhesive plaster strapping in rigid valgus.

(Dr. HATCH'S Paper.)

Louisiana State Medical Society Proceedings.

1908 MEETING (*Concluded*).

(EDITED BY PUBLICATION COMMITTEE).

DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DR. EDWARD S. HATCH, of New Orleans, read a paper on

The Treatment of Flat Foot.

I should hesitate to speak to you on this subject about which so much has been written, were it not for the fact that flat foot so often goes unrecognized is daily brought to my notice.

Flat foot or weak foot is a very common ailment, and nearly all lay people diagnosis it and offer suggestions as to treatment, but the fact remains that the physician is very rarely consulted by a patient who thinks that he or she has flat foot. The exceptions to this are of course the patients suffering from any of the different grades of flat foot who are referred from the physician to the orthopedic specialist. But the patients who come of their own accord say that they are suffering from rheumatism of the feet and ankles, or that they have corns on the soles of their feet. At least eight out of every ten cases of flat foot are sure that their trouble is rheumatism, and they generally try the various remedies without relief.

There is no absolute standard of the height of the arches of the foot; a patient with a very high normal arch which is breaking down will often suffer more than one in which we can see very little arch.

The cases may well be grouped into classes, such as weak pronated feet, flexible flat foot, rigid flat foot, and metatarsalgia, and the treatment of each class differs markedly.

The class of weak pronated feet is seen in all ages; it is very common in young girls from twelve to twenty, and also is seen in both sexes at the time when they begin to stand more; that is to say when they enter their life work, a foot that has been naturally weak will under the extra use break down and cause symptoms.

Parents sometimes bring their children for treatment on account of the way that they walk and the way that they wear their shoes, namely the shoe becomes worn out on the inner side and the shape is soon lost, due to the fact that the pronation causes the weight line to fall well inside the normal limits.

These feet are usually found on examination to be perfectly flexible, and often the arch is normal in shape when no weight is placed on the foot, but when the patient stands, the line of weight bearing which would normally fall from the center of the patella to the interval between the second and third toes falls over or inside the great toe.

There is a subclass under this head in which the patient suffers pain as well as deformity, which is due to the breaking down of a very high normal arch.

In the treatment of these cases the writer feels that it is a mistake to put on a rigid plate, but that is just what is usually done by the shoemakers and the laity.

We want in this class of cases to restore the normal condition of weight bearing by such means as will tend to strengthen the muscles of the foot. This may be accomplished in some cases by the use of a "Thomas heel," which is a heel that runs forward on the inside of the shoe for one-half to one inch, and is also raised on the inside one-quarter inch. This tends to prevent the rotation of the astragalus in walking, in some cases a light spring steel plate is used, which does not splint the foot, but corrects the walking position. In all cases exercise, hot and cold showering, and if possible massage are advised.

Ellis* has devised some very good exercises, and any form of exercise which will give eversion, inversion and dorsal and plantar flexion are to be used. Dr. Osgood† has devised a simple machine for exercising the feet which is very satisfactory.

Under the second class, that of flexible flat foot, I mean to include those cases where the arches are much depressed even in a position without weight bearing.

These patients suffer more or less pain in the soles of the feet, under and in front of the external malleolus, and sometimes running up the leg. In these cases a support is in my experience

**Lancet*, Sept. 25, 1886.

†Dr. Osgood, *Am. Journal Orthopedic Surgery*, October, 1906.

usually needed, and I usually make them of somewhat heavier material than for the simple weak foot.

They are made of sixteen to twenty gauge steel, tempered in whale oil, and are shaped so as to put the foot in as near a normal position as possible.

Exercises are advised in this class of cases, but I find that it is very hard to make the patient carry them out, especially in busy men who are relieved by a support.

It is sometimes necessary to put flanges on this type of plate, and as the case improves I believe that it is wise to remove the flanges as soon as we can, so that the patient will have as small a support as possible, and will depend more and more on the muscles of the foot itself, which are gradually made stronger by proper use.

As this class of case improves it is necessary from time to time to raise the height of the support.

The next class, namely, rigid flat foot, presents the hardest problem; the deformity is a valgus, and the problem is to change the position of weight bearing, and in order to do this with comfort to the patient we must make the foot as flexible as possible.

In other words, a patient suffering from a condition of rigid valgus is not helped by a plate because he cannot wear it with any degree of comfort.

Then, as the first problem is to make the feet flexible, the procedure necessary for this will depend on the cause of the rigid valgus.

In some cases it is due to muscular spasm, and in some cases to the actual contraction of the muscles, in other cases the condition may be due to adhesions between the bones, and in still others to outgrowths of bone and to faulty position from old fractures.

I believe that the routine treatment of these cases should be to etherize the patient, with the understanding that whatever seemed necessary should be done.

Patients will not always accept this advice, and in such cases we can sometimes accomplish a great deal with successive strappings with adhesive plaster, correcting the position more and more at each strapping.

If, however, the patient is willing to take ether, we can do much more. Under ether the cases of simple muscular spasm are at

once relieved, and the procedure will then be to manipulate the foot and put it up in plaster for a few days in an overcorrected position, when the plaster is removed a cast of the foot is taken and a plate made and the foot held meanwhile with adhesive plaster strapping.

If under ether the case presents adhesions the manipulations will of necessity be more prolonged, and it may be well to employ a wrench to assist the hands in this work.

When the foot is as flexible as possible it is put up in plaster for ten days to two weeks in an overcorrected position; then when the cast is made and the plate fitted I find that the adhesive plaster strapping of the foot in an overcorrected position to be worn with the plate is a great advantage.

In the cases that present muscular contractures the peroneals are the muscles that I have seen affected. If in these cases a simple manipulation is done the rigidity returns and even after successive manipulations the results are not satisfactory.

An operation which is very useful in these cases was devised by Mr. Robert Jones of Liverpool, and consists in taking out a section of about three-quarters to one inch from the tendon of the peroneus longus and from the tendon and muscular portion of the peroneus brevis.

The foot can then be easily corrected and is put up in plaster in an overcorrected position and kept there for one month. Walking is then begun with a Thomas heel or with a properly fitted plate.

In some cases, after long periods of use in a position of valgus, the scaphoid becomes luxated and is shown by a marked prominence on the inner side of the foot. Several cases of this class have had the scaphoid removed with the very excellent functional results.

If the pain is due to osteoarthritic outgrowths I believe that the best plan is to relieve it by a properly applied support, because if we remove the osteophytes they may return and the relief that the plate affords is complete.

Under this head we also see the painful flat foot due to old Pott's fracture. In these cases I feel that massage, hot air and a support give the best results.

The class of cases called metatarsalgia, or Morton's toe, were first described by Dr. T. G. Morton in 1876. This condition is a

very interesting one; the patients complain of pain in the anterior part of the foot, which sometimes radiates from the region of the fourth metatarsal, but which also is found to radiate up from the region between the great and second toes.

A symptom often spoken of is a severe cramp, which necessitates the removal of the shoe and the rubbing of the foot for a few moments.

These feet are usually flexible and present callouses on the plantar surface of the foot under the metatarsal heads. This condition is often found combined with a breaking down of the longitudinal arch as well.

When the patient stands the front of the foot is spread out and lacks tone.

The treatment consists in measures to restore the transverse arch, and this may be done either with a soft support like a piece of felt or by a plate, combined with exercise.

My plan is to adjust a piece of felt just behind the metatarsal heads, and then bring the front part of the foot together with strips of adhesive plaster, which will also hold the felt in position. I find that this method is a very satisfactory one, because it is often hard to make the patient understand the cause of the pain, but when he gets relief from this simple procedure he is willing to undergo treatment for the relief of the condition.

The plate which is used in these cases is made so that it puts the pressure just back of the metatarsal heads. I often speak of this type of plate as a spoon plate with the bowl of the spoon forward.

It sometimes happens that this class of cases need lateral support as well; in other words, their symptoms are not relieved by the plate entirely; in these cases we may use light steel side springs or successive strappings with adhesive plaster.

The exercise treatment in this class of cases is very essential, and in a word consists, in trying to make the toes do the work of the fingers in grasping, etc., and thereby strengthen the muscles.

CONCLUSIONS.

I. In the treatment of any of the types of flat foot each case should be studied by itself, and a so-called shoemaker's arch or stock plate should never be used.

II. When a plate is found to be necessary in the treatment of a

case it should be as light as possible, and its use should be supplemented by exercises so that the patient can in time get along without it.

III. It is never wise to put a plate on a rigid flat foot.

IV. It is of the utmost importance to have the patients wear shoes of a correct shape, namely those with a straight inside line, with a broad toe and a low square heel.

V. The military position of standing with the feet turned out and forming with each other an angle of sixty degrees should be strongly combatted, as the position is an unstable one and tends to pre-nation.

VI. Patients should be taught to stand with the feet parallel and to walk with the toes forward.

DR. F. A. LARUE, of New Orleans, read a paper entitled

Cuneiform Resection of Knee for Ankylosis.

On the third day of March, 1907, there was admitted in Ward 2 of the Charity Hospital of New Orleans John Hall, a young colored man, twenty-three years of age.

He was then suffering from a perforating gunshot wound of left knee joint, which had been inflicted a week prior to his admission. At the time of the accident he was seen by a physician, who enlarged the entrance wound and inserted drainage tubes.

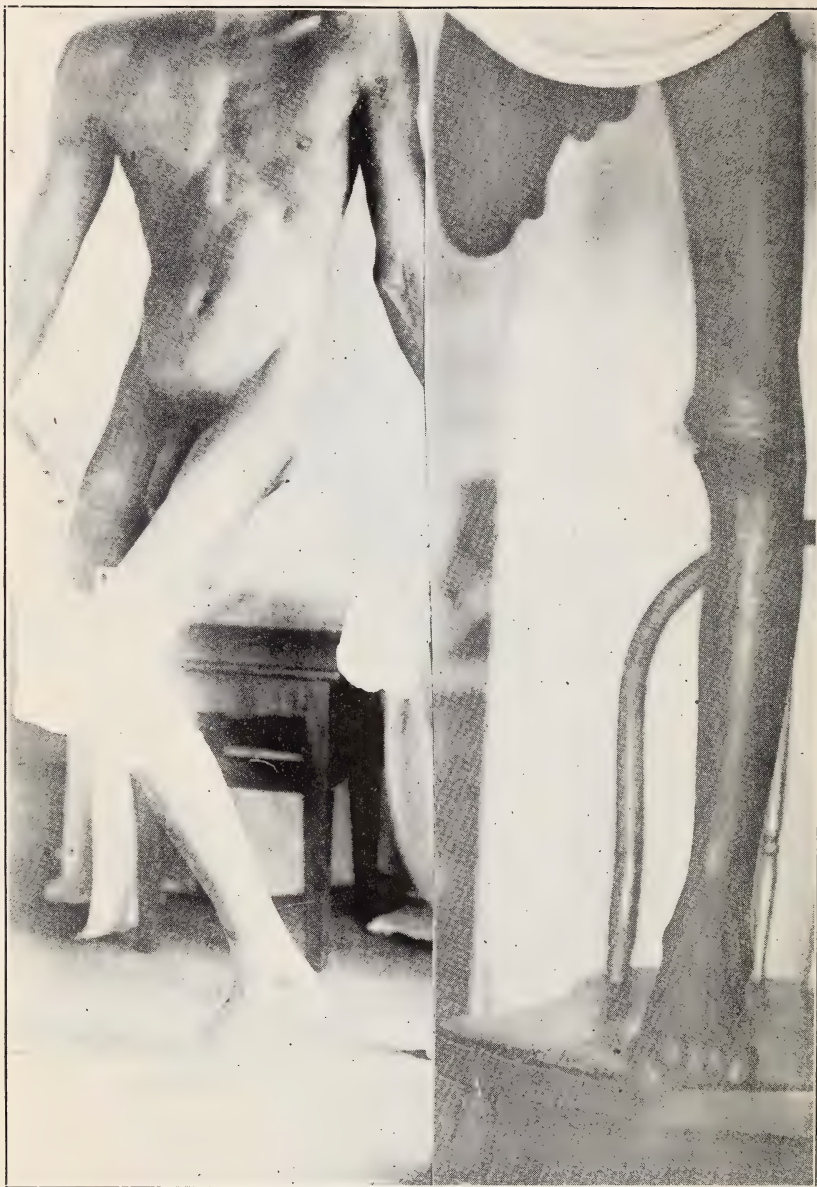
As to the previous history of the patient there was nothing noteworthy. He had had the usual diseases of childhood. He admitted imbibing freely, but denied any venereal infection.

The most important bit of history of relative value is the fact that patient had received a gunshot wound of *right* leg four years previously, and owing to septic complications amputation above the knee had then to be performed.

He presented a septic chart from date of admission to April 26, 1907, followed by slight remissions until July 2. He was discharged as improved from Ward 2, August 10, 1907.

On the 19th of last December the same patient was admitted into my service in Ward 29 of the same institution.

I found him somewhat emaciated, with the *right* leg amputated above the knee and the *left* leg in a state of solid angular ankylosis, with a sinus leading down to bone.



Cuneiform Resection of Knee for Ankylosis. Before and After Operation.
(RR. LARUE'S Paper.)

Patient asserted that one month prior to entrance to Ward 29 he had removed the bullet, a number 38, by means of poultices made of "gold dust" and molasses frequently applied for two weeks.

Be that as it may, about the middle of January, 1909, I cut down and chiselled out the tunnel of bone forming the sinus and curetted thoroughly.

I was anxious to asepticize as much as possible the entire region before attempting the radical step of straightening the limb.

Restoring a leg to a rectilinear position by the bloodless or cutting operation has often been done, the other leg existing, but I am sure that similar procedures for ankylosis have very seldom been performed when only one leg (the crippled one) existed.

Although the indications were clear for such an intervention, still there was nevertheless greater responsibility attached, for had septic complications set in, the limb might in all probabilities have had to be sacrificed, leaving the patient in a legless condition.

He was not able to walk or stand up before the operation except by leaning against a support as shown in the first picture. He could not sit down very well; in fact he spent most of his time lying on the floor.

I will now pass around the photographs of the patient taken before and after the operation.

Owing to the presence of variola, he was vaccinated February 20, 1908, and in due time it took well.

On February 24, four days after being vaccinated, and under ether anesthesia, I performed a cuneiform resection of the knee and succeeded in straightening the limb, as shown in second photograph.

The incisions made were in the form of an H; one transversely over the patella and two lateral incisions, permitting the dissection of an upper and lower flap, thereby facilitating the sawing of the osseous wedge.

There was an intimate union of femur to tibia and of the patella to femur, rendering any forcible and bloodless correction not only impossible, but really dangerous, such as tearing the popliteal vessels and nerves.

The simple transverse or curved incision generally made, when the joint can be flexed would never have sufficed.

The great danger in operating was in regard to the popliteal

artery, which, as we know, lies in close contact with the posterior ligament of the knee joint. It was fortunately uninjured, the ligament not having been in the least torn.

For the same reason, in straightening the limb great care was taken not to pinch the said ligament between the posterior edges of the approximated bones, the latter being held together by six kangaroo tendons.

During the fixation in rectified position the limb was cautiously well padded over the former popliteal region, so that undue pressure would not be brought against the vessels. Adequate padding was also laid over the malleoli and around heel.

A long pasteboard gutter splint was applied, the whole being encased in a plaster cast with a trap door fenestrum over the site of the excised knee.

The only pain complained of was a burning sensation in the posterior region of the heel, which prevented the patient from sleeping. This was quickly relieved by removing a circular piece of plaster from that region and replacing same by additional pads of cotton batting.

Notwithstanding the precautionary measures fever set in, lasting about a week; stitch abscesses developed, which were given due attention.

The toes and foot never became the least swollen or cold, indicating that the pressure over popliteal vessels had not been miscalculated.

About three weeks after the resection the leg was lifted out of the splint, which had been cut in front, and given a hot bath, alcohol rub and gentle massage.

These post-operative measures were repeated frequently until April 10, six weeks after the excision, when the patient for first time stood up, bearing his full weight on his foot.

On April 22, two months after the operation, patient got about on crutches for the first time, and I am happy to state that now, although he is not as active on his crutches as a person with the help of another leg, still he is able to get about, a great improvement on his condition prior to the operation.

DISCUSSION.

DR. P. L. THIBAUT: I did not hear all of the paper, but had the pleasure of assisting the doctor in the operation of this case.

and wish to congratulate him on the result obtained. It was a poor individual who had been allowed to leave the institution with a leg ankylosed at almost a right angle, so that the only way he could circulate was to drag himself on his hands and buttock. He is now able to get about on crutches, and should he ever be able to procure an artificial limb, he will be able to walk around almost as well as any of us.

DR. F. W. PARHAM, of New Orleans, read a paper entitled:

The Importance of the Examination of the Urine for Tubercle Bacilli, with Presentation of a Specimen of a Tuberculous Ureter Showing Calculi in Situ.

The purpose of this paper is to show by the relation of the salient points in the report of an illustrative case the importance of the routine examination of the urine for the Koch bacillus in all cases where tuberculosis of the urinary tract is not clearly to be excluded.

The case in point is that of a young girl just arriving at maturity, who came under my observation several years ago, giving an almost life-long history of severe paroxysmal attacks of pain in the back and radiating down towards the region of the appendix. These pains had troubled her much more of late years and especially for the last few months. The history of the attacks, together with the evidence of tenderness about McBurney's point and some elevation of temperature occasionally made me suspect the appendix. Accordingly, after watching her for some weeks and finding no abatement of her sufferings, with the concurrence of Dr. E. S. Lewis, I opened the abdomen through a McBurney incision. I found an appendix not deviating much from the normal in appearance. It was nevertheless removed as a possible cause of her obscure symptoms. The right ovary was drawn up by Dr. Lewis, and, being diseased was also removed.

There was amelioration following this intervention, but later the old pains returned. Suspecting that the trouble might be due to renal stone, I had the abdomen radiographed a number of times by the best radiologists in the city, but no shadow of stone upon the plate. So thoroughly was this done that she subsequently suf-

ferred from a severe X-ray dermatitis of the abdomen, which lasted several years. Still her old pains continued. The pains were referred especially to the back in the region of the right kidney, where there was also tenderness. The failure of the X-ray to reveal a calculus, although the pictures were otherwise good, made me feel that the trouble might be a renal neuralgia. So, I opened the loin and brought the kidney out. Nothing more abnormal than an unusually adherent capsule could be discovered. The kidney was decapsulated, the wound closed and the abdomen opened in front below the umbilicus. The left ovary was found badly cystic and removed. The line of the ureter was palpated, but nothing found. This was about seven months after the previous operation.

There now seemed decided improvement, but this was unfortunately only for a time, for she began very soon to develop the self-same symptoms as before. Numerous examinations of the urine had been made for the past year or more, with very indifferent results. Occasionally, blood-corpuscles had been found, sometimes casts and albumen in small quantity. Stone somewhere had been for long suspected, and now the suspicion grew stronger than ever, by reason of the failure of two surgical interventions.

She was admitted again into the New Orleans Sanitarium, September 4, 1905, more than two years after the first operation. Repeated examination of urine showed sometimes blood-corpuscles, casts and albumen in small amount, but oftener was negative. Symptoms of bladder irritation were now more prominent and a systematic cystoscopic examination was determined upon. On September 14, I made an unsatisfactory examination. On September 17, Dr. Hume, at my request, examined her with me. The left ureteral meatus was easily found and was normal, spurting clear urine. The right meatus was found, but was so much congested and so situated on an elevated papilla that the catheter could not be engaged. Cloudy urine could be seen oozing slowly from it. This, taken with the edemateous contraction of the meatus and the intense congestion in the neighborhood, indicated positively that the trouble was on that side. Being anxious to get into this ureter, four days later Dr. Hume made another attempt with a like result. The cystitis set up by these examinations was so great that no further attempt was made to enter the ureter. In the meantime and subsequently repeated careful examinations

were made by Dr. Hume of the urine, special attention being directed to the discovery of bacilli. On September 17, 18 and 19 prolonged search was made with proper staining. At last only two, but characteristic, bacilli were found, not, however, completely differentiated from the smegma bacillus. On September 24 more was found. On September 26, after long search, one was seen. After this occasional bacilli were found.

Her suffering continuing and the symptoms distinctly pointing to the right side, I operated on October 12, removing the right kidney, which subsequent examination showed comparatively sound, no bacilli being found. The kidney showed no distinct signs of disease. Unfortunately, the patient's condition on the table was such that I could not explore the ureter down to the bladder.

She recovered from the operation, but was never well. Bacilli continued to show in the urine, sometimes as on November 8, in large number.

This state of things not changing, in March, 1907, I persuaded her to go again to the Sanitarium, where, on March 27, I again operated, removing the ureter completely.

DR. F. W. PARHAM, of New Orleans, read a paper entitled:

The Use of the de Pezzet or Umbrella Catheter in Surgery

I have for some years been using the umbrella catheter in connection with operations upon the urinary bladder, but it had not occurred to me that this catheter had a very extended field of usefulness in other departments of surgery, until my attention was attracted by an article in *Surgery, Gynecology and Obstetrics* on the Technique of Gall-bladder Surgery, by A. J. Ochsner, of Chicago. He there showed very clearly how admirably adapted it was for continuous drainage of the gall-bladder. Since that time for about two years, I have resorted to its use in a number of cases with the greatest satisfaction. With it a free and unobstructed flow of bile may be provided for without the loss of a single drop on the dressing. When one has had experience of the disgusting appearance of the dressing and clothing of a patient saturated with bile, to say nothing of its disagreeable odor, one can hardly regard this an insignificant recommendation. Further, it facilitates the

technique of cholecystostomy very materially. When the umbrella has been pushed into the gall-bladder and a few sutures, or a circular suture, tied about it, it can be very conveniently utilized as a tractor to lift up the gall-bladder until sutures are placed attaching it to the peritoneal and muscular edges of the wound. Again, if the gall-bladder is deeply situated and is too short to be brought up into the wound, a de Pezzer catheter, fastened in securely and surrounded with a small pack of gauze or a rubber tube, may be left in until adhesions effectually shut off the rest of the peritoneal cavity. Another application occurred to me recently in a case of common duct stone in a very stout man I assisted Dr. Martin in operating upon. When the stones, two in number, had been removed through an incision in the common duct, the bile began to pour out from the duct. At my suggestion an umbrella catheter was introduced and sewed by two or three sutures. Another was put into the gall-bladder. The abdominal wound was closed about the two stems and the dressing applied. The catheter had not been so well applied in the gall-bladder, so that some little bile leakage took place, but the duct drain acted admirably and convinced both Dr. Martin and myself that in common duct drainage as well as in deep gall-bladders this apparatus could be of the greatest assistance.

A further application might be found in those cases requiring hepatic duct drainage. Here a catheter with a flange-like modification an inch or two from the end instead of the terminal umbrella might be employed with advantage, the flange being just within the common duct as the stem emerged through a slit in its wall. I think the umbrella catheter used in this way for deep drainage far better than the button with cylinder-prolongation originally devised by Murphy some years ago.

Nothing is better for suprapubic drainage of the urinary bladder than an umbrella catheter of appropriate size and shape, nor is anything better for drainage of bladder *per viam naturalem*. But this use of the catheter is familiar and I pass on to some other applications that may be new to most of you.

For gastrostomy in much debilitated subjects, I cannot conceive of anything better than this little instrument. The stomach may be drawn up, a very small hole made in it, between two stitches, the umbrella, reduced by stretching, easily inserted, the two stitches

tied over the umbrella, the stomach attached by a few sutures to the wall and the abdominal wound closed, the whole operation not requiring more than ten minutes. The advantages are so apparent I will not enumerate them.

A third use is in the large intestine in place of appendicostomy, which, originally suggested by Weir, has had much vogue, particularly in England of recent years, and in the life-saving drainage of the small intestines, the advisability of which has been so clearly shown by Lund and others. I recently had opportunity of doing this in a case in which I assisted Dr. Miller. In this case an umbrella was inserted in the small intestine, and not only was the intestine drained through this, but normal salt solution, Epsom salts and even actual nourishment was thrown in and retained.

It might be used in pleural drainage, but, unless for serum, is not so good as an ordinary drainage tube. But in pericardial empyema I can conceive of an umbrella catheter of proper size and form as being extremely useful. If thin, soft and flat, it could in no way irritate the heart and might prove a safe and reliable drain. In ascites it might be used for more efficient drainage than is accomplished by the ordinary tapping. It could be easily introduced through the ordinary canula used in tapping.

DISCUSSION.

DR. DENEGRE MARTIN: I only wish to say I have made use of this catheter, and believe it has a wide field of usefulness in surgery.

DR. R. F. HARRELL, of Alexandria, read a paper entitled:

Otitis Externa Acuta.

In my selection of a subject for this occasion, I have been actuated largely by a desire to present something that would be of interest to the general practitioner. As these cases most always fall into the hands of the general practitioner first, I have felt that a discussion of some of the practical points connected with the disease could hardly fail to elicit the general interest of this body.

The affection presents itself in two forms, namely: Circumscribed, and diffuse inflammation of the canal. The first named

is an acute inflammation of the cutis and the subcutaneous areolar tissue, leading to the formation of an abscess or abscesses; while the latter is not confined to the structures of the canal, but attacks the tympanic membrane also, and in this way disturbs the function of audition. The changes consist in diffuse inflammation of the cellular tissue of the walls of the canal. In the first stage the parts are intensely congested, after which there is a free transudation of the fluid elements of the blood, causing edema; the interstices between the connective tissue fibres become infiltrated with new cells, and, if allowed to continue unchecked, pus formation is the result. The tissues in this region, however, break down very slowly on account of their firmness and density.

Etiology: Catching cold, especially being exposed to strong draughts of damp air; otorrhea dependent on disease of the deeper structures which contain cocco-bacteria; the employment of dirty plugs of cotton wool in the auditory canal, very frequent syringing of the canal, with neglect to dry out afterwards; immoderate scratching of the auditory canal with the ear-pick or other substance, especially where there is a discharge from the middle ear; the use of irritating liquids in the canal. The presence of fungi growing in the canal, while harmless in healthy individuals, is often a source of trouble if there be any irritation in the canal due to other causes. Politzer observed a case in which large accumulations of aspergillus were present in the canal without a trace of inflammation. By way of experiment, he made a small incision in the skin, whereupon an inflammatory infiltration was induced, which did not pass away till the end of two weeks. The aspergillus is more frequently the cause of the diffuse than the circumscribed form of the disease. The use of the vegetable oils, such as castor and sweet oil, in the auditory canal, favors the development of these fungi, and I know of no condition where their use in the auditory canal is indicated. The diffuse form of the disease is sometimes produced by the exanthematous disease, in which inflammatory processes extend from the face and scalp to the auditory canal. Measles, scarlet fever and syphilis are responsible for attacks of this kind. Chronic eczema of the canal, in those employed as scavengers, or those working in slaughter-pens, will often lead to an infection, and bring on the disease. Sometimes the diffuse is developed from the circumscribed form of the disease.

Symptoms: Slight itching and a stuffy feeling of the canal, together with pain, more or less violent, are among the first symptoms. In the circumscribed form the pain varies greatly with the location of the furuncle, being more painful in the deep, bony portions of the canal than it is when situated near the meatus. In fact, I have recently had two cases in which the furuncles were of considerable size, situated in the cartilaginous portion of the canal, and yet they ran their course, developing well into the pustular stage without any pain hardly at all. In some cases, however, the pain is very intense, and not limited to the ear, but shoots over the whole side of the head, so that the patient may not recognize the true seat of the affection until other symptoms point to the ear, such as deafness, tinnitus and otorrhea. The pain is very often increased by movements of the jaw in mastication and swallowing; or the slightest manipulation of the auricle, or the least pressure upon the tragus, or in the depression between the jaw and the mastoid, usually give rise to severe pain, particularly in the diffuse form of the disease, and marks it as a case of external, rather than middle ear disease.

Deafness in varying degree is one of the most prominent symptoms, accompanied by subjective auditory sensations of different kinds. These special symptoms are usually the result of co-existent hyperemia of the deeper structures, or by the presence of inflammatory products, which, accumulated in the canal, press on the tympanic membrane, and thus, indirectly, increase the intralabyrinthian pressure. These symptoms are more pronounced in the diffuse form of the disease, on account of the frequent involvement of the tympanic membrane. There is more or less fever accompanying the disease, the temperature sometimes running high in the diffuse form.

Objective symptoms in otitis externa diffusa vary from the first in accordance with its cause, severity, the structures implicated, and its origin, whether primary or secondary. In an idiopathic inflammation the skin at the beginning appears reddened, more or less swollen, and the epidermis in places loosened, or even lost. The redness is usually most marked in osseous parts of the canal. The whole surface of the tympanic membrane also appears red and swollen in the diffuse form of the disease, especially at its periphery and along the handle of the malleolus. Irregularities of the canal

are generally present, the swelling encroaching upon the lumen of the canal in places sufficient to almost, and in some cases to entirely, close the canal. In some cases it is impossible to introduce the smallest speculum into the auditory canal. It may be for a time difficult to determine whether the inflammation be of a circumscribed or a diffuse kind. If the hyperemia be very considerable, redness and swelling in the mastoid region readily occur, as well as edematous swelling in the parotid region, and enlargement of the lymphatic glands about the ear. In some of these cases pus will spread beneath the scalp, and cover the entire mastoid region, giving rise to symptoms that are very easily mistaken for mastoid trouble.

I remember being called a few years ago to consult with a very intelligent general practitioner in a case of this kind, where he had suspected mastoid involvement. On careful examination, it was found that the whole trouble came from a case of inflammation of the external auditory canal. The pus was evacuated, and patient had a good recovery. In certain cases the inflammations of the external ear assume a very dangerous character in delicate children, especially when ill-nourished, by the recurrence of gangrene of the soft tissues. Sometimes the inflammation from the beginning is limited in extent, and gangrene sets in very rapidly. A more or less extensive slough is formed, which usually destroys all the soft parts down to the bone. The separate sections of the temporal bone, which, during childhood, are united for the most part by soft connective tissue, suffer displacement. The disease encroaches upon the soft structures in the neighborhood of the ear, and often produces great destruction of the tissues of the cheek, head and neck. In many of these cases, where there is swelling and edema of the mastoid region, the case is liable to be mistaken for mastoid trouble; but if there is deep pressure made upon the mastoid eminence, directing the pressure backward, there will be no appreciable pain. But if the pressure is directly towards the auricle, the pain will be very great. The auditory canal is usually filled with a whitish exudation, consisting mostly of exfoliated epithelium, often of a pasty consistence, from admixture with viscid secretion; sometimes it consists of a continuous pouch-like membrane, which has to be removed by syringing or with the cotton-tipped applicator. When this obstruction is removed we

often find a reddened surface in the deeper portions of the canal, which are liable to be mistaken for polyps springing from the canal, or from the middle ear cavity.

In some of these cases there is perforation of the tympanic membrane, which would lead more readily to error in diagnosis.

The prognosis in the circumscribed form of the disease is more favorable than in the diffuse, but we must not forget the great tendency to recurrence, and bear in mind the possibility of gravitation abscesses when estimating the length of time our patient will probably be getting well. In the diffuse form there is greater danger of a permanent lowering of the hearing. In regard to the effect upon the hearing power, we have to bear in mind not only the various circumstances that may influence the result in a circumscribed otitis, but in this case, also the condition of the affected tympanic membrane as to render its satisfactory cicatrization a matter of doubt. Again, infiltration into its substance may be so considerable as to make its complete absorption very doubtful. These are conditions that must be taken into consideration in making up our prognosis. But the general result of experience in cases of diffuse external otitis in healthy subjects is that recovery takes place in from three to eight weeks, and without any notable loss of hearing, even though a perforation of the membrana tympani have occurred.

Treatment: The first efforts in the treatment of this affection are toward the relief of pain, and the absorption of the process before the stage of suppuration is reached. In the early stages of the affection leeches, anodynes, scarification of the inflamed parts and irrigation with hot water may be used. For warm irrigations, the fountain syringe is about the best instrument that can be used. Fill the syringe with boiled water containing some antiseptic, and with a small tip, let the water run into and out of the ear, not with too much force, adding hot water occasionally as the patient can bear it, until you get the temperature up to the highest point of toleration without pain. This will often allay pain and have a beneficial effect on the hyperemia of the parts involved. In the interim between irrigations, the application of the ice bag to the mastoid and parotid regions. But I wish to condemn the use of hot poultices to the ear, as they favor the development of inflammation of the parotid; also perichondritis in the mastoid region. The use of laxatives in the early stage is very

important, especially if the fever is high, and patient of full habit. The canal should be constantly cleansed of secretions, which some times is very difficult on account of the intense swelling, and narrowing of the canal, and some antiseptic ointment of solution applied to the canal wall. Various substances have been used for this purpose, namely: Ichthyol, sulphur, sulphurett of potassa, boric acid in alcohol, alcohol alone, or the injection of a carbolized solution into the affected parts. After twenty-four or thirty-six hours, if the pain is not relieved and other symptoms improved, a deep incision should be made in the posterior, or postero-superior wall of the canal, passing the point of a sharp pointed bistuary through the integument, down to the bone, close in to the drum membrane, and extending the incision outward for one half to three quarters of an inch, dividing all the soft tissues down to the bone. This usually gives almost complete relief from pain, relieves tension, depletes all the affected tissues and affords free escape to any pus that may be formed. The canal should afterward be irrigated with warm water to remove clots. In some cases we have abundant granulations form, in which cases the use of nitrate of silver in solutions varying from one to ten per cent. are some times advantagous. If the solutions of the silver nitrate are not effectual, an application of the solid stick may be used. But in most of these cases there is no remedy that equals a strong solution of boric acid in alcohol. The canal should be first cleansed with an antiseptic solution, and dried thoroughly. Then the warm solution is poured into the canal and allowed to remain for about ten minutes. The pain and swelling in some cases are rapidly reduced and a cure effected in a few days. Since I have been practicing in Alexandria I have been called upon to treat an unusually large number of these cases, and I find that they yield more readily to this plan of treatment than any other that I have ever adopted. I think it is decidedly better to use this remedy as hot as can be borne in the ear without pain. It seems to have a very marked antiseptic and analgesic effect. In the circumscribed form there is a great tendency to return of the disease. In such cases the use of a one per cent. solution of sulphuretted potash will often break up this tendency. In conjunction with this, it is well to use internally Fowler's solution and sulphide of calcium. While in many of these cases the disease seems very

mild and of little consequence, yet we should in all cases remember the possibility of grave and even fatal termination. Propagation of the inflammation to adjoining structures is greatly favored by anatomical and pathological conditions. Thus, toward the parotid gland its extension readily takes place by way of the fissures of Santorini, the tissues filling which offer less resistance than the cartilage. Anomalous tissues are sometimes found along the entire length of the upper and posterior walls of the auditory canal and communicate with the mastoid cells, as well as by the tegmen tympani, with the cranial cavity. An inflammatory process arising in the external auditory canal in such case might easily spread to the cranial cavity and terminate fatally.

DR. O. M. PATTERSON, of Bastrop, presented a paper (Read by title) on

Acute Nephritis in Children.

The treatment of acute nephritis in children should vary according to the severity of the attack. The patient (as a rule) should be put to bed in a well ventilated room; at uniform temperature day and night and should wear an undershirt continuously. The slightest chilling of the body is thought to be very dangerous. The diet should be of the simplest form and of such a character as to throw the least possible strain upon the kidneys. If solid food should be allowed at all it should be of an easily digested nature, such as oatmeal, cracked wheat, and so on. In most cases the patient seems to get along better on an exclusive milk diet. At regular intervals water should be drunk freely and regularly. Ice water should not be allowed, hot water should be insisted upon if possible. The daily amount of liquid to be consumed should be about five quarts or thereabout according to the age of patient. The skin and bowels should be kept active. The indications for treatment of a medical nature should be first to soothe the kidneys and restore functional activity. Second, to excite excretion through the other organs and thus lessen the strain upon the kidneys. For this purpose I am in the habit of giving the bitartrate of potassium. As soon as I find the amount of renal secretion lessening, as I find the bitartrate more active I commence with small doses and increase the dose until I give an

ounce in 24 hours or until I get the desired effect from this treatment. To lessen the strain upon the kidneys further and eliminate excrementitious material, purging with salines or with elaterin pill (made according to Wood & Fitz formula No. 25), one pill every 4 to 6 hours until free purgation has begun, keeping in mind the strength of my patient. Sometimes tincture of aconite serves a good purpose, when there is considerable fever with arterial excitement, for the purpose of reducing the force and rate of pulse and to keep the skin more active and moist. Holt says that in a study of fifteen cases occurring in children a study of these cases yielded the following facts: The onset in nearly every instance was very abrupt, usually with high temperature and albumen usually present, but not always. We should procure a specimen of urine as soon as possible, and if the bitartrate is not well borne citrate potash, or the alkaline mineral waters may be substituted. You will find that your patient will not tolerate any one remedy for an indefinite period; you will of necessity have to change your treatment occasionally. If your patient gets very anemic you will have to increase the diet, watching at the same time the urine. If the high fever is maintained and the urine becomes very scanty from the above treatment the patient will require more active treatment. The hot pack should be tried to cause free diaphoresis or even pilocarpin hypodermically, one-sixtieth grain given to a child 3 or 4 years old, and repeat as the case may be, or as the occasion may require. To prevent the depressing effects of the pilocarpin stimulants should be given at the same time. Active counter irrigation over the kidneys should be maintained, mustard plaster, dry cups, hot poultices, etc.

Calomel occasionally in small doses does more good at times, it seems to me than all other remedies, as it serves a double purpose by acting on the kidneys and liver at the same time. Nitroglycerin, it is thought, fills a very important place very often in treating these obstinate cases of nephritis delirium, high temperature, flushed face, vomiting and pulse of high tension. A child 4 to 5 years old may be given 1-300 grain every hour for 3 or 4 doses if necessary. Uremic convulsions may be averted by the use of morphin hypodermically according to the age of the child. One should always be on the lookout for complications, especially dropsy of the serous cavities, pericarditis or endocarditis and

edema of the lungs. Convalescence is always (or nearly so) very slow, and a patient suffering with nephritis should be looked after carefully for a long time. Anemia is always present and iron should be administered until it has been overcome. The diet as before said should be liquid for some time and gradually increase to solid as the digestion of the patient may improve.

If the child passes into the sub-acute stage the patient may have to be carried to a warmer climate and kept there until it entirely recovers; every means possible should be taken to build up the general health of the patient. As before stated an undershirt of flannel should be worn next to the skin, and every precaution taken against exposure which might cause return of the disease.

DR. THOMAS RAGAN presented a paper (Read by title) on

**A Plea for Surgical Diagnosis by the General Practitioner,
with Report of Two Cases of Ruptured
Tubal Pregnancy.**

There are many pathological entities little or not at all modified by the resources of internal medicine, yet which may be successfully treated surgically. These latter are called surgical diseases, and it is for their recognition as such by the general practitioner that I make this plea. Gross traumatic lesions, as fractures, dislocations, lacerations, cuts, punctures, burns, etc., are considered surgical, but non-traumatic infections, even with the pyogenic bacteria, are not held to be such till undoubted abscess formation, and this not recognized unless it "point" superficially. Brain, mediastinal, liver, retro-peritoneal, appendical, tubal, etc., and to this may be added osteo-myelitis and periostitis, abscesses, often destroy the patient without a correct diagnosis ever being reached.

Neoplasms are not differentiated and treated according to their clinical characters. The size and physical inconvenience to the patient alone often prompt the physician to advise surgical treatment. "Never trouble a tumor till the tumor troubles you" is a dictum current today. I know patients who are now in good faith acting on that advice from their medical adviser. Two cases that I have in mind are cancer of the breast.

Then the limitations of medical treatment should be better observed. An abscess is poulticed and perhaps finally incised, the opening being what a certain hospital orderly contemptuously called a "medical cut." His large observation had shown him that prompt recovery depended upon relief of tension, and securing good drainage. Cancer of the breast is "observed" to see if it will give trouble. Cancer of stomach is not diagnosticated till tumor can be demonstrated, and men who are capable of good diagnostic work, often give repeated "test" meals and demonstrate gastric peristalsis with an obstructed pylorus. This is interesting as instruction to pupils, but disastrous to the patient. Such men have not attained to the position of the surgeon who says: "I do not know what is the matter with you, I think you need an operation, I will cut in and see." The expression "exploratory laparotomy" is but little comprehended by the "medical" profession, at large.

Cancer of the uterus is not recognized till it is inoperable in upward of 50 per cent. of cases. This is far from always being the fault of the patient.

Acute osteo-myelitis gets much good treatment for rheumatism, the great distress, prostration and even death, of the patient, considering the limited involvement, is accounted an unfortunate, and unusual termination of a case of acute rheumatism. I have seen impacted fracture of the hip, with deformity and shortening, called sciatica; fracture each of tibia and fibula, called contusion of soft parts and treated with liniments and lotions. I asked the doctor in charge of one of these cases where he had graduated. He took offense at the question and did not answer. I later learned that he was a recent graduate from a small college and had no clinical teaching. Ovarian cysts are treated with diaphoretics, diuretics, and purgatives as an ascites, and tapped many times in succession with no thought as to their real nature. The origin of hemorrhage in hematuria is rarely sought, and more rarely discovered. I have in mind a case of many months' duration, in which no effort was made to discover the cause till post mortem, when it was seen to have been a simple papilloma of the bladder, easily amenable to proper treatment. Another case of impassible stricture was not operated because the bladder gave no signs of distension. On post mortem the bladder was

found enormously hypertrophied, capacity one ounce, and incapable of giving the dome-like hypogastric tumor that alone would have been accepted as indication for operative interference. A laborer had a fall of about six feet, cut one ear slightly, but was unconscious for a half hour. A neat dressing was put on the ear, and the patient, accompanied by his wife, walked a quarter mile home. The accident was about 2 p. m. His doctor saw him as late as 8 p. m. and thought him in good condition. At 2 the following morning I was called. I had a messenger go at once for the doctor who had seen him earlier. He declined to come, but sent some morphin tablets. The patient was in coma and died in two hours from meningeal hemorrhage. There must have been signs of this condition in time to have attempted relief. In this connection I could allude to some of my own mistakes, but do not now recall but one for which I could not give at least some sort of plausible excuse. Many of the observations that inspired this paper were in New York City, where as medical examiner for a great casualty insurance company, I had excellent opportunities to see the diagnosis and treatment of cases in which I had no responsibility except to report the facts to the company.

Careful diagnostic work is greatly neglected by general practitioners, especially by men who are remotely situated and more thought is often given to a plausible cause of death for the mortuary report than was given as a basis for treatment while the patient was alive.

There are many physicians doing obstetrical work who never repair lacerations of cervix or perineum, nor do they recognize the necessity of such work.

Much gynecological practice is fitly characterized as "tinkering," meaning local applications, tampons, douching, sounding, endo-electrolysis, pessaries, etc. Apologists for these as treatment say that they are "one-man" operations. The inadequacy of diagnosis and treatment at the hands of the family physician is responsible for resorting to quacks for a relief that the sufferer has failed to get from his own medical adviser. So important a resource as urinary analysis is greatly neglected, and such men would not correctly interpret reports properly made out. Many physicians are without microscopes and have small appreciation of what can be seen with them. Blood examinations are not yet

available to the great majority of the profession. Simple as the technic is the blood is examined in a systematic way only by the exceptional man. I doubt not that the great hospitals have more blood work done than the entire profession besides.

There are many accidents in obstetric practice which demand attention from the man who has the case, and each general practitioner should meet the indications for treatment or summon assistance who could do this.

In this connection I report two cases of an accident that must be more frequent than reports would indicate:

Case I.—(By the courtesy of DR. S. L. WHITE.)—Mrs. ——— *aet.* 35, mother of one child *aet.* 10. No subsequent pregnancy, Curettage and perineorrhaphy two years ago. Patient had subjective signs of pregnancy beginning about November 1, 1906. On November 29, Thursday, she had a sharp pain in the lower abdomen which was followed by considerable shock. She was in bed most of the time till 4 a. m., Saturday, at which time she was in collapse. Under stimulation she revived somewhat, but in a general way her condition grew worse, pale, pulseless, and extremely exsanguinated. Nearly four liters of hot normal salt solution were given by hypodermoclysis during the day Sunday. I saw the patient at 4 p. m., and operated in her home, under cocain anesthesia. The abdomen was full of clotted blood, which came from a ruptured right tube. The tube was ligated and removed, the embryo within its membranes, still adherent to its attachment in the tube. Embryo was about 8 or 10 weeks. Patient made a good recovery.

Case II.—(By courtesy of DR. W. S. HARRELL, who gave me the history of the case.)—Mrs. H——, *aet.* 29, married 10 years, one child, 3 years old, miscarriage a year ago. Menses regular, but for three months at some time subsequent to her miscarriage, when she thought herself again pregnant. There was no interruption just prior to the rupture, but she had nausea and pelvic uneasiness that made her suspect pregnancy. One week prior to operation she had occasional sharp pains in uterus and rectum. On the third day and again the second before operation, she had severe paroxysms of pain in pelvis, lasting an hour, with considerable prostration. While not free from pain, she was confined to bed.

She had sharp pain and collapse on the morning of December 17, 1907, but was up later in the day.

Dr. H. was called at about 2 p. m., and found her with pain, weak, rapid, feeble pulse, she having grown progressively weaker since the morning. Examination revealed great tenderness and a mass behind and to the right of the uterus. Stimulants were administered but in an hour the pulse was 160 and very weak.

Patient was prepared for operation, which was done under local anesthesia. Found ruptured tube on right side, with large amount of blood in abdominal cavity. Products of conception were not found.

Patient made a good recovery.

DR. JOHN F. OECHSNER, of New Orleans, read a paper entitled:

Some Interesting and Instructive Bone and Joint Cases.

CASE No. I.—*Osteo-myelitis left femur; Extensive Sequestrectomy. Fracture of thin forward shafts near knee joints during operation. Rapid union of fracture and granulation of wound.* Esther Frey, 13 years old, of good family and personal history, was admitted into the Charity Hospital, March 13, 1908. Present illness began two months previous to admission. She developed fever one night upon retiring and general malaise. Later during the night she suffered much pain in the left thigh, just above knee. This condition grew worse during the next week, when swelling and redness of the thigh were noticed; a profuse diarrhea appearing at this time, the case was diagnosed typhoid fever. The attack lasted six weeks, when all symptoms subsided, except the swelling of the thigh, for which she was brought to the hospital.

Appearance on Admission: Very much emaciated and gives every indication of having gone through a severe septic siege. Left thigh very much enlarged and hard to the touch. Leg flexed to almost a right angle at knee due to hamstring contraction and cannot be brought down. See photograph.

Operation: March 14, under ether anesthesia a long incision was made on the anterior aspect of thigh, extending something over half its length. The periosteum elevated, the femur was found disintegrated through its entire diameter and from the

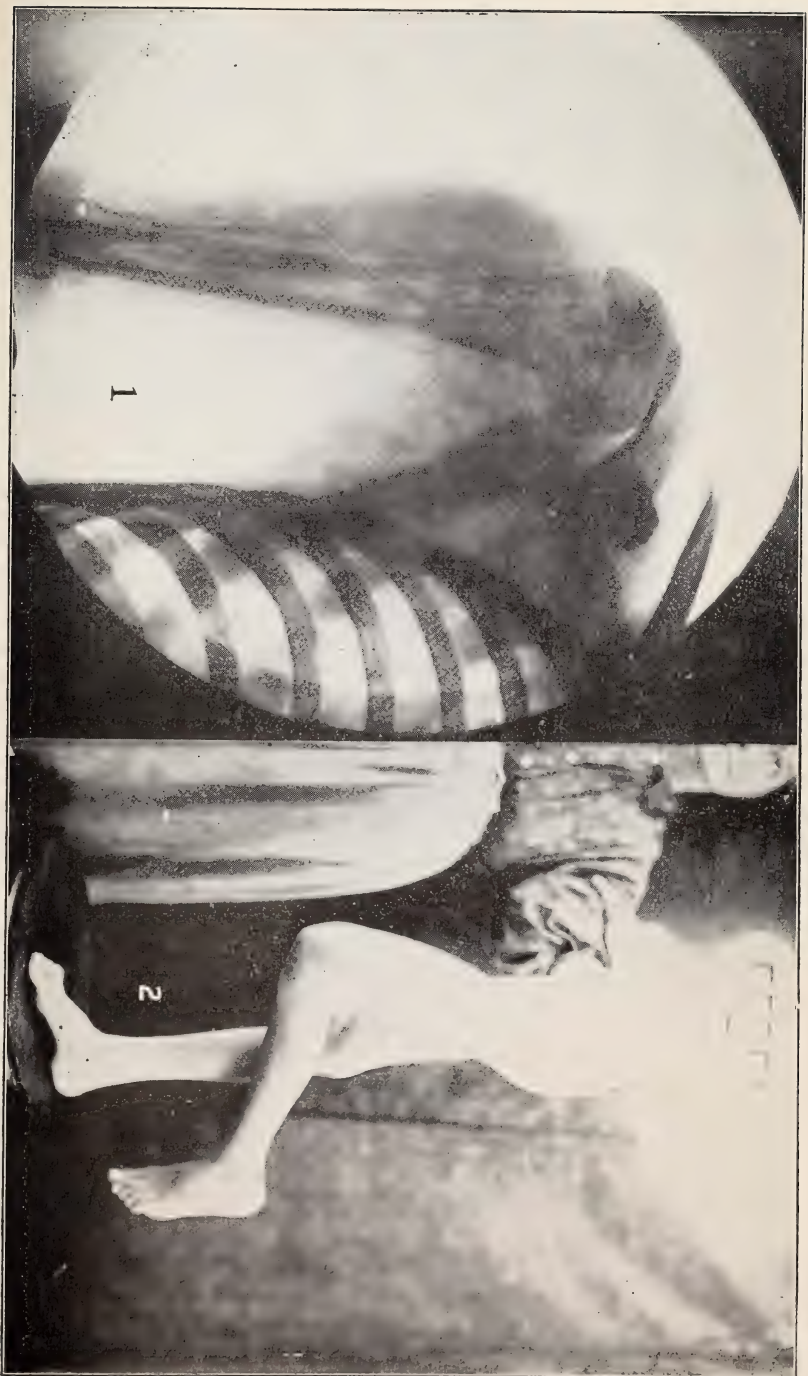
lower epiphyseal line, fully two thirds of its length. With chisel and rongeur aid the diseased portion, save a narrow posterior scaffold was removed, the epiphyseal cartilage swathed of all diseased tissue and the periosteum, muscle and skin centered over a firm iodoform pack. During operative manipulation of the flexed leg, the narrow posterior scaffold was broken at its lower end. The limb was put up in extension, subsequently a Hodgin's splint used temporarily and finally at each dressing a few turns of plaster of Paris insured immobilization. On the eleventh day after the operation the inner iodoform pack was removed under general anesthesia and the wound found clean. Union of the fractured bone progressed uninterruptedly, and on May 1 the cavity has almost entirely filled in, bony union firm and the skin wound is almost covered. Widal reaction negative.

COMMENTS: An osteomyelitis, and not typhoid from the beginning. A profound septic invasion, judging from the history and from the patient's appearance when first seen. Nature's happy protection of adjacent joints at the epiphyseal border line, as is usual. Ready union of bone in a compound fracture as further illustrated by the next two cases.

CASE II.—L. M., 10 years old, with a *chronic femoral osteomyelitis*, had the femur broken at its lower end during operation. With plaster of Paris fixation union was prompt.

CASE III—*Compound fracture left femur, middle third.*

Loturson B., 4 years old, was admitted to the Charity Hospital October 15, 1906, and discharged April 13, 1907. Family and personal history good. Present injury half hour before admission. She fell from a 30-foot gallery and sustained a compound fracture of the middle third of the left femur, together with general contusion of the body. Under chloroform anesthesia the wound was cleaned and dressed and a long plaster spica applied to the limb. On October 25, under ether anesthesia, incisions were made on the anterior and posterior aspects of the thigh, and a large collection of pus removed. The pus cavity included the two ends of the bone, and the periosteum was ended on both fragments. Thorough rubber drainage was instituted, another long plaster spica applied and fenestra cut through the coat at the points of incision to allow of irrigation; the pus cavity remained well drained, drainage tubes removed in about 2 weeks. November 23, practically one



1. Case 4. Osteomyelitis of left humerus, showing extensive destruction of bone with intact upper articular cartilage.
2. Case 1. Osteomyelitis left femur, showing great enlargement as compared to other thigh. Leg flexed to nearly a right angle.
Dr. Oechsner's Paper.

month after opening the large abscess, the plaster cast was removed and union found complete and firm. January 8, 1907, the child developed measles. January 25, wound on thigh had healed except for a sinus left in a large depressed cicatrix which had broken down two weeks previously, allowing of a considerable discharge of pus. Incision over old wound at this time shows that although there is good bony union, the fragments overlap about three-quarters of an inch. The proximal overlapping portion is necrotic and is chiseled away and the wound dressed and splinted. February 8, 1907, wound healing slowly; still considerable pus. General condition good. April 13, 1907, wound healed, slight superficial granulation; child walks well.

COMMENT: In spite of a lake of pus, union of the broken bone goes on splendidly and with the two preceding cases illustrates the favorable progress and result in the compound fractures of children.

CASE IV.—*Osteomyelitis left humerus. Extensive sequestrotomy.* Leotia Burg, 10 years old, was admitted to Charity Hospital November 7, 1906. Discharged March 31, 1907. Family and personal history negative.

Present Illness: Three months before admission she fell, striking on her left side and apparently fracturing her humerus. The arm was immobilized, but continued to swell and became exquisitely painful. A removal of the dressings and a further examination showed the humerus had not been fractured. The acute symptoms abated, but since then there has been a progressive enlargement of left arm, with pain and tenderness. Two days after the original injury the child had a severe pain in left hip. She was put to bed for four weeks—no particular treatment.

When admitted it was supposed for the hip trouble. Nothing found there.

November 30. Sequestrotomy under ether, extensive from shoulder to elbow. Musculo-spiral nerve avoided. Articular cartilages intact. Hip got well while in bed. Nothing done for this.

March 31. Discharged cured. Quite a good motion of arms. Hip well.

CASE V.—Dempsey Baxter, 5 years old. Admitted February 13, 1908. Good family and personal history. Several months ago fell, striking left arm, later this began to swell and he complained

of great amount of pain. Later a sinus developed and discharged pus. Physical condition at present: Healthy child. Arm sinus discharging pus.

February 22, 1908.—Under ether anesthesia excised ulna, etc. Little discharge at top of wound. Discharged March 23, 1908.

CASE VII.—Robt. Brondier. Nativity, Mississippi. Age 6. Admitted April 16, 1908. Discharged May 6, 1908. Family history, negative. Personal history, whooping cough and measles as an infant.

About a year and a half ago had a fall, which fractured left ulna. After a month it appeared quite restored in function. In December, one year later, the arm was struck in the same region by a baseball. It became swollen and painful and a week later drained spontaneously at most dependent part.

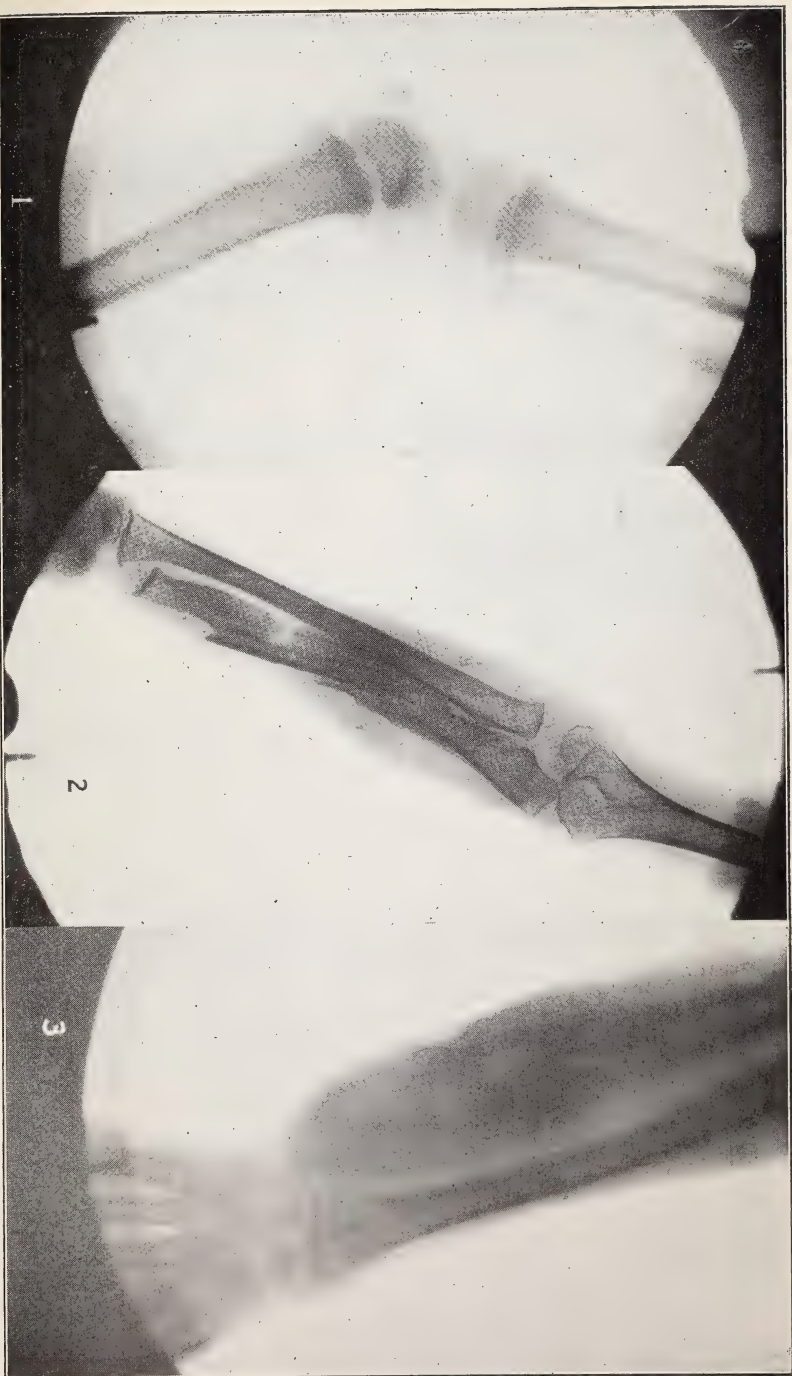
April 16 he applied for admission to ward. The lower one-third of ulna was then exposed, apparently hypertrophied and sponge-like in appearance, with copious discharge of pus. Temperature normal and general condition good.

April 18, under ether, the ulna was resected from lower epiphysis to upper one-third, cavity cleaned, periosteum and soft parts sutured and wound closed without drainage. Temperature went at once to 104°, but subsided on second day. Wound healed rapidly, save a small superficial area at lowest part, without pus.

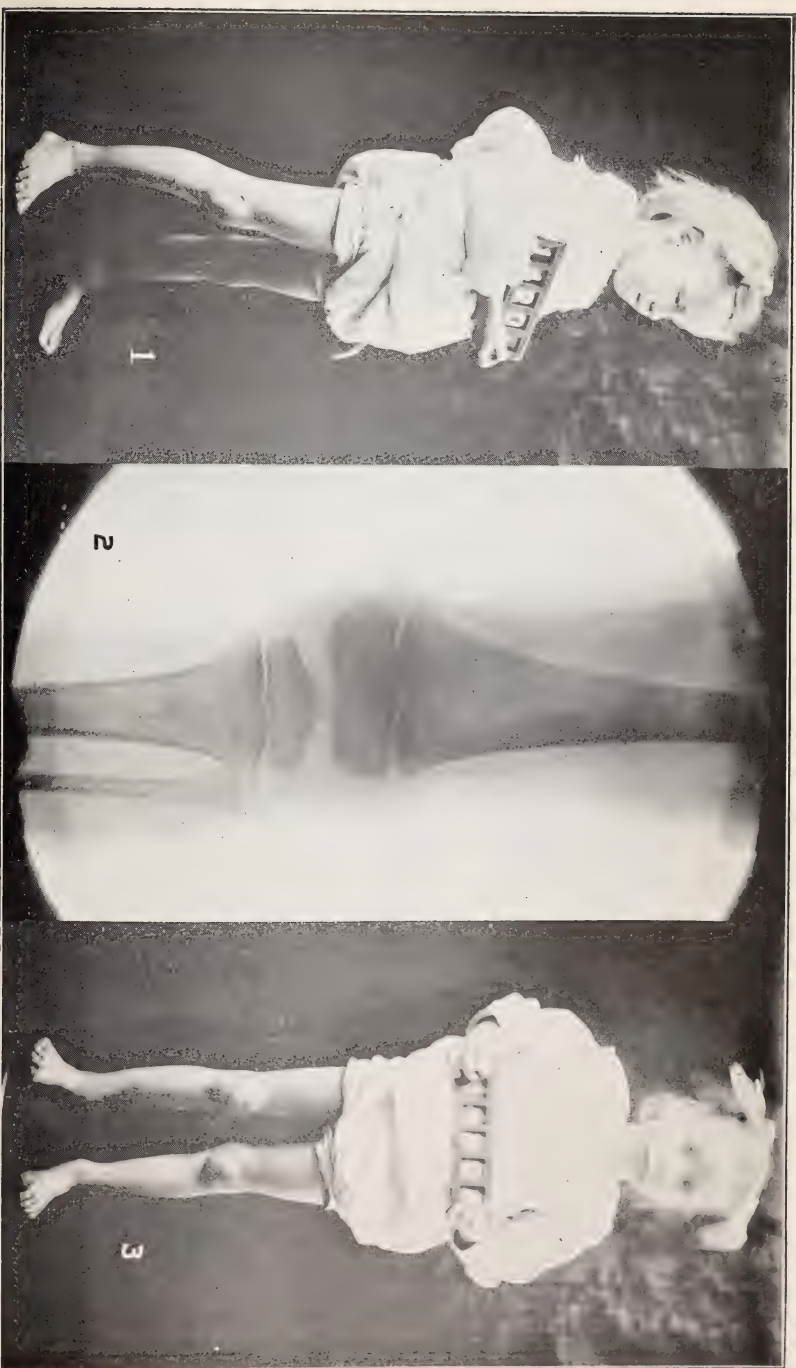
May 5, there is still a superficial area unhealed with a slight sero-purulent discharge.

CASE VIII.—Alice Young, 2 years and four months old. Diagnosis: *Pyarthrism right knee joint*. Three weeks before being seen by us it was noticed that she walked lame and there was a slight swelling around knee joint while walking; leg was slightly flexed. Counter irritation made to knee. Temperature ten days after first symptoms were noticed. A second attempt at counter irritation; no result. When first seen, the knee greatly swollen and painful on pressure. No fluctuation. Ice cap and sand bags. Second day, aspiration, incision, rubber drainage. Pus contained staphylococci; vaginitis (staphylococci, no gonococci). Tube removed in two weeks.

CASE IX.—Lucille T—, 14 months. Admitted February 7, 1906. Discharged March 9, 1906. Father died of acute miliary tuberculosis after an illness of 2 months. Alcohol used. Mother in good health.



1. Case 9. X-Ray of knee of second case of suppurative arthritis of knee. Specimen exhibited.
2. Case 7. Necrosis of Ulna, showing enlargement. Ulna resected. Specimen exhibited.
3. Case 6. Necrosis of Ulna, showing enlargement. Ulna resected. Specimen exhibited.



1. Case 8. Suppurative arthritis right knee, showing incision scars, lateral view.
2. X-Ray of knee, Case 8, after operation.
3. Case 8. Suppurative arthritis right knee, showing incision scars, anterior view.
Dr. Oechsler's Article.

Present Illness: Fell on knee 10 days previous to admission. Following morning not able to walk and did not cry. Three days later, some pain—cried out whenever an attempt was made to move leg. Ten days after injury, operation. Pus found sterile.

Comments: Cases 8 and 9.—Early removal of pus; no erosion of arthritic cartilages. Perfect functional result.

CASE X.—*Specimen Osteomyelitis.* History not secured. Did all in nature's effort at removal of pus.

DISCUSSION.

DR. WM. PERKINS: Two or three points are worthy of consideration here. One is the use of "bone plugging," as suggested by Mosetig-Moorhof, with a sterile wax, which will be slowly absorbed or pushed out as granulations grow. In cavities near joints, this method may be of great value.

Another useful procedure is to apply tincture of iodine freely to the healthy tissues incised in reaching a septic focus, so that the fresh absorbant surfaces may be protected from septic discharges. The superficial coagulation caused by the tincture diminishes absorption while the natural defensive process of granulation is beginning. In some bone cases very fragile shells are left and the danger of fracture of these is especially to be feared in the humerus and femur, because in these the weight of the limb acts with so much leverage. Plaster casts fitting too loosely about the hip and shoulder may add to the danger by increasing the weight of the limb without properly transmitting the strain to a safe anchorage above the disease. I have found a device of two paste board splints placed with their planes at right angles (such as one behind the thigh and one along the external aspect of the thigh) very satisfactory in giving sufficient strength and rigidity without weight. A strip of paste board which will readily bend out of its plane (across its thickness) with great difficulty bends in its plane (across its width.) By using two splints at right angles, the side splints prevent antero-posterior motion and the posterior splint prevents lateral motion. One last suggestion. In some cases of bone necrosis it is important to leave a shell of bone, even though it be a fragment that will eventually be removed, until new bone can be formed. By this procedure,

collapse of periosteal shell with its attending deformity may be prevented.

DR. EUSTIS: Dr. Oechsner said in speaking of opening the knee joint to open it and allow free drainage. He did not mean simply to make an incision and pack with iodoform gauze. I think he meant drainage with rubber tubing. I have had two cases, which showed the advisability of this method. One was the case of a small boy who had periostitis of the femur. At that time there was a slight stiffness in the joint. I did not feel justified in opening the knee joint, because the periostitis was well down on the femur and I was afraid of infection. Later I saw the boy again and the knee joint looked as if it was about to burst on account of pressure. We made four incisions and put in two drainage tubes, through and through, which were left in several days. After about six days the tubes were removed and the joint healed up without ankylosis. I saw another case where there was a large accumulation of pus. Similar drainage was used, and the result was entirely satisfactory. I wish to emphasize the importance of opening up the joint widely. Do not open unless there is pus, and then open wide.

Orleans Parish Medical Society Proceedings.

President, DR. W. H. SEEMANN.

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141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, *Chairman*.

DR. HOMER DUPUY and DR. H. D. KING.

MEETING OF FEBRUARY 8, 1909.

Symposium on Headaches.

DISCUSSION.

DR. DOCK: I have been struck with the insistence of all the readers upon the importance of thorough examinations in cases of headache, and I would like to add my voice, and urge that we examine each patient thoroughly, not stopping when we find a satisfactory

cause, but investigating each organ and function. One of the striking features of life is the abuse of headache remedies by the public—in fact, many physicians use them on themselves. Patients are very often dismissed with as little examination as they would get from a drug clerk, thus giving a false idea of the needs of the condition. As an example of the possibilities, I would cite the case of a girl with constant headache—and it is, of course, constant or recurring headache that we consider in this discussion—whose urine showed albumin and casts, and who was treated for nephritis. She also had chlorosis, a possible cause of headaches of a very severe kind, but in her case not marked, though easily shown by the blood examination. She finally went blind, with symptoms indicating thrombosis, a rare but important complication of chlorosis, and one that could have been prevented by treatment directed to the chlorosis. Other important cases are seen in patients with hyperchlorhydia, in whom headache is sometimes the only symptom, though with a degree of hyperchlorhydia that in many would cause stomach symptoms. In some, but not all, of these cases there are ocular anomalies, and apropos of these and other ocular headaches I would like to urge that in such cases sufficient pains be taken to get the best correction for the anomaly. The headache does not always stop as by magic when the proper glasses are put on, but does later, and knowledge of this fact may prevent much disappointment and not a little symptomatic treatment.

DR. CAMMACK: I notice that Dr. Weil, in his paper, brought out one point of special interest, in that headaches of nasal origin are sometimes due to an hypertrophy, or even an entumescent condition of the middle turbinate.

There are quite a number of cases on record in the recent literature of nasal headaches where relief has been obtained for these patients by operating on this class of cases.

Careful and repeated examination is often necessary to determine that the headache is due to this condition. Sufferers from headaches should have their nasal cavities examined far more often than is done, as a very simple nasal operation oftentimes gives wonderful relief.

DR. JACOBY: In the discussion there seem to be two important causes which have been overlooked, namely: flat-foot and dental caries, especially of the last two molars. I recall a case who sought

relief of many physicians, and who was cured by the correction of a flat-foot deformity. I wish to ask Dr. Blum why the oculist finds it necessary to change glasses so frequently, and the cause for their errors in many cases?

DR. E. A. ROBIN: I would emphasize the importance of looking into the cause of headaches before instituting any treatment. From an ophthalmological standpoint the examination should be thorough, not only as to the state of health of the eye, but as to its refraction and muscle balance. No examination for refraction is complete, in my opinion, in the young, and even in the middle-aged, unless made when the eye is dead—that is to say, with its accommodation at rest. The failure in doing this is the reason why ophthalmologists so frequently differ in their findings, with the consequent frequent change of glasses. The findings of two or three, or even more, ophthalmologists of equal attainments made under the same conditions—that is, under cyclopegia—would be the same. This is in answer to Dr. Jacoby.

Another matter requiring special emphasis is the pain in glaucoma. General practitioners, as a rule, do not recognize the cause of the intense pain which accompanies this disease. Either from ignorance or failure to investigate properly, these cases are allowed to drag along for days and weeks following a treatment giving more or less of the so-called neuralgia, and finally reach the ophthalmologist when the damage to the sight has been done and sight past human help. I have had such unfortunate experiences. It behooves every one of us to be careful in our examinations of patients entrusting themselves to our care, and hence I wish heartily to concur with Dr. Blum, who stated that every physician should be able to recognize glaucoma, to differentiate it from iritis and other important eye diseases. I am glad to say that Tulane University is now endeavoring to do this in its undergraduate department by making a fair knowledge of ophthalmology necessary to obtain a degree. The Polyclinic has for many years been trying to remedy among physicians this serious defect in the medical education of their student days. Had I not, as a medical student, had a predilection for this branch of medicine I am quite sure that I would have graduated without knowledge enough to tell the difference between glaucoma and iritis.

Another cause of headache is the premature loss of accommoda-

tion, due to organic changes in the lens or lack of proper innervation in the individual. We know the lens is at the height of its accommodative power at the age of ten years, and it gradually becomes weaker as the nucleus hardens with advancing age. We should look for this condition if we are unable to find any other defect as a possible cause of headache.

Replying to question, "What is glaucoma?" Dr. Robin answered that it is a condition characterized by hypertension of the eyeball. The liquids in the eye accumulate either as a result of defective elimination through its emunctory channels or as a result of too great secretion of fluids, or both. The operation of removal of the superior cervical ganglia has been suggested as a remedy for the latter cause. In most cases, however, we rely upon the classic operation of iridectomy for our best results.

DR. THIBAUT: I would like to ask Dr. Blum if it is fair to make an examination of the eye without making use of atropin to dilate the pupil?

DR. H. P. JONES: I would like to ask Dr. Van Wart to place the status of migrain from a neurological standpoint.

DR. BRUNS: Mr. President, I am sorry that I came in late, but that part of the discussion I have heard I was very much interested in. There are two points which I would like to bring out. One of them is the elimination of the eye as a cause of headache, and the other the use of atropin. In answer to Dr. Thibaut's question, I think it quite unfair to say that unless the headache disappears in 24 hours after the instillation of atropin the test does not indicate an eye headache. But if the tendency to headache persists after one week of atropin, then we may state that the eye is not the causative agent. In doubtful cases, as I said before in a paper before the State Society, if the eye is placed under atropin for a week, the question of eye-strain may be eliminated. Refractive defects do not necessarily produce headache. Headaches from other causes and refractive defects often occur together, and to discover whether the headache is due to the defect or some other reason, is where the atropin test would come in usefully. Often defects of muscular balance produce these conditions, and time is required to disentangle the complications and arrive at a correct judgment. We have got to place our patients under atropin for a week and take him away from his work before we can master

the condition and reach a satisfactory conclusion. The general practitioner ought to understand this condition of affairs, and it is impossible to arrive at a conclusion in such cases after one or two visits. We have to go through the whole process of examination repeatedly, necessitating usually a whole week if the consultant is a good doctor, conscientious, patient and thorough.

We need a more absolute definition of migraine. Almost every one seems to have his own. Taking my own definition, my experience is that refractive defects seldom cause it, though correction of defects mitigates it. I have some figures of observations that I have been lately interested in. Fifty cases sent from my clinic at the Eye, Ear and Nose Hospital to the Nose and Throat Department because we thought the ear, nose and throat might be the source of the trouble, were reported back 39 times. Only 9 of these complained of headache. In these 9, the findings by the Nose and Throat Department were: One was a case of acute frontal sinusitis, complaining of pain over the eye (*not* headache); 1 adenoids; 1 remains adenoids; 3 pharyngeal tonsil enlargements; 3 nasopharyngeal inflammations.

DR. SIMON: The term auto-intoxication is one of the most loosely used in medicine, and, in its strict sense, would mean any poison generated in the body. However, the term is usually used in connection with the absorption of chemical products from the intestinal canal, due to saprophytic decomposition of food remnants. What these poisonous products are is still in some doubt. Indoxyl potassium sulphate is not sufficiently poisonous to the organism to explain the symptom group of so-called intestinal auto-intoxication, and so indicanuria is, at best, but an index.

An every-day form of headache is often referred to an inactivity of the bowels, which in turn form intestinal auto-intoxication. There are hosts of people who complain of headache when their bowels fail to move regularly, but there is always a question in these instances whether the constipation itself is not due to the same poison which causes the headache. I am not much impressed with a simple intestinal auto-intoxication as a cause of headache. I believe the liver undoubtedly plays a big part in these so-called auto-intoxic states. If we could once get a good insight into the workings of this vast chemical laboratory much of the present uncertainty would be cleared up. The cause of migraine is always

an interesting study, and it is reasonable to infer, since it seems to be of auto-intoxic origin, that a functional disturbance of the liver cells is at the bottom of the condition.

DR. WALET: I would like to ask of the ophthalmologists or neurologists the percentage of headaches due to overtaxation of the eye, as compared to other parts of the body? And I would like to know if some headache might not be due to excessive venery?

DR. CHAVIGNY (in closing): I have nothing to add, since there has been no discussion. Dr. Walet's experience, in which he mentions excessive venery as a cause of headaches, is, I believe, pretty well established.

Before closing I would like to mention a case which occurred in my practice some time back which, while not a gynecological or obstetrical case, but of sufficient interest, I believe, to warrant mentioning. The case was one of a young lady suffering from a persistent constipation, which at times caused her to suffer intensely with headaches. She consulted several physicians for the obstinate constipation. Thinking that her severe headaches were due to eye-strain, she was advised to see an oculist, who found nothing wrong with her sight. After several weeks' observation and treatment for her intestinal condition we arrived, at the diagnosis, of a chronic inflammatory condition of the appendix as the cause of the obstinate constipation, which caused the headaches and sluggishness. I advised removal of the appendix, and found it to be slightly congested and presenting all the appearances of being the source of a previous inflammation. She made a good recovery, since which time her bowels have been acting regularly, and to all appearances is cured.

DR. WEIL (in closing): I would like to say a word or two about Dr. Bruns' figures. Of the nine cases referred to the Nose and Throat Department, thinking the headaches due to possible causes in these regions, as I remember it, one was a case of acute sinusitis, one adenoids, two hypertrophic rhinitis, or, in other words, four out of the nine cases—almost 50 per cent—were due to some nasal defect. Dr. Bruns' suggestion is interesting and good, that we should send our headache patients first to the rhinologist and then to the ophthalmologist.

The laity are already educated up to the point where they suspect

the eyes as a cause of headache, but unless suggested to them they never think of the nose as its possible origin.

DR. LEMANN (in closing): I regret that there has been so little discussion of my paper, and so little consideration of the subject from the internist's standpoint. What little discussion there has been has laid too much stress, I think, upon auto-intoxication. The importance of the rôle played by the liver has been underestimated. Dogs in whom the portal circulation has been diverted so that the portal blood passed directly into the general circulation have shown certain nervous phenomena, such as convulsions. So a diseased liver might permit toxins to pass into the general circulation and cause nervous phenomena, among them headache.

DR. VAN WART (in closing): In answer to the question concerning migraine, it must be clearly understood that neurologists distinguish sharply between migraine, neuralgia and headache. The term migraine is limited to those attacks of pain in the head accompanied by ocular phenomena, vomiting and with various other symptoms, such as ataxia, weakness of one side of the body, weakness of the ocular muscles, etc. Neuralgia is limited to that form of pain which occurs along the distribution of a peripheral nerve, and is sharply limited to that distribution. It is accompanied by points of tenderness along the course of the nerve. The term headache is used to describe all those vague, diffuse pains in the head which do not come under the other headings. To this class belong the large proportion of cases seen. While both migraine and neuralgia may be symptomatic of another disorder, when they occur as symptoms, they do not lose their distinguishing characteristics, and can only be differentiated by the presence of the other symptoms of the diseases in question. In regard to the relationship to epilepsy, many neurologists regard migraine as the sensory equivalent. This, however, is by no means certain.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

A Duty.

Every now and then some great cateclism touches the heart centers of the world and a response speeds as fast as the harnessed forces of the civilized world may bear it. The past hundred years has witnessed a number of such, and the chauvinistic minority are hushed for a time in their pleadings against man's inhumanity to man.

Some philosopher has uttered the word that man's greatest enemies are famine, war and disease, and yet these three are not yet eliminated. We need the human experience to bring us to realize how true the statement is. The constant turmoil of the world compels now and then both famine and war, but disease is always with us. The combat against it is constant and the price has ever been one paid by a loyal medical profession—struggling ever to prevent and to find the cure for each new or old disease that threatens.

When some strong soldier for the cause of preventive medicine appears in the vanguard, championing his theory of righteous belief by his own experiment and by his own exposure to the dangers of the enemy, the world chronicles the experience as news, gives short notice in the daily columns of the great panderers to the public curiosity, but buries the glory of it in the neighboring headlines of nauseous nastiness or crime, and when these heroes in medicine fall by the wayside they may pen obituaries in editorial style and forget both the man and his cause.

Philanthropic Midases build monuments to satisfy their own consciences and draw designs for these along their own selfish lives—but it is seldom that the heroes in medicine are remembered when these are planned. When a few decades have buried the man, and his works are resurrected, now and then some conscience-awakened legislative body may vote a paltry sum to buy a bronze or marble statue for his descendants to glory in.

Meantime the victims who are the sufferers by his ardor and zeal live out an existence made all the more hard by the loss of their natural protector.

We are again reminded of this by the pitiable state of the family of the late James Carroll, a martyr to the yellow fever propaganda which has revolutionized the knowledge of this disease, and which, by its dispensing, has saved thousands of lives in our own and other lands. Congress has done something for his widow, but not enough to keep the wolf from the door. Picture that brave wife and widow, struggling to make her little family of seven children worthy of their father's name! On April 3 the list of contributions to her aid and support totalled from all sources the magnificent sum of \$2,504.95.

What are we of the Southland going to do? Have we no duty in this matter? Shall the Nemesis of his fate point an accusing finger at each of us who are the witnesses of his great work, or shall we add our mite and breathe the message to his sorrowing and struggling widow that our sympathy is with her and our pride and our help as well?

Send your check *now* to Major M. W. Ireland, U. S. A., care of Surgeon-General, War Department, Washington, D. C.

Some Medical Problems in the South.

For some years we have known that the sand hill countries of the Southern States were the homes of the hookworm, but such startling prevalence as obtains had to be brought to us by Dr. C. W. Stiles in his recent lectures in the Tulane Medical Department Extension Course. A new side of the question is also presented—the part the negro plays in this disease as a carrier, and who is more or less immune to its effects, and at the same time certainly susceptible to its invasion.

In educating ourselves on this question no time should be lost in educating the negro, and at the same time those under whose control he most naturally would fall.

Soil pollution everywhere carries disease as a consequence, but in the South, where the negro is as 833 to 1,000 whites, the element of danger grows with the constant factor of ignorance and vicious practices amongst the negro race. Underfed, underhoused, underclad, animal almost in their habits of resistance to natural con-

ditions, these people enjoy a degree of immunity to the whole group of soil-carried diseases, which is in inverse ratio to that found in the white race. Living side by side, the more civilized race is bound to feel the pernicious influence of the negro, especially under present conditions of hygiene, education and of prosperity.

Malarial infections, typhoid, hookworm and dysentery in its various infective forms are types of the diseases which are enormously increasing the death rate amongst the whites in the agricultural districts, while the negro is little, comparatively speaking, impressed with these diseases, and the natural diseases of the negro—syphilis, tuberculosis and venereal infections—are less effective in the country than in urban communities.

Boards of Health throughout the States of the South should thoroughly investigate the charge of Dr. Stiles that the latrine is unknown in too many places, and, where privies do exist, they are not properly built to protect against disease.

The strongest argument that can be made for such an investigation must be based upon the preservation of our agricultural peoples. The wealth and prosperity of a State depend upon the development and the integrity of those of its citizens who till the soil; and it is imperative that these shall be safeguarded in their healthfulness if they are to follow the plough.

Scientific Papers at the Meeting of the State Society.

We are informed that the titles of about 100 papers have been sent for the meeting of the State Medical Society, which is to take place in a few days. Notwithstanding the fact that the creation of the House of Delegates will give additional time for the consideration of papers and for discussions, it seems apparent that it will be a physical impossibility to give due attention to these numerous papers during the time allotted for that purpose. If all the writers are present, and even moderate attention is to be given to each, the Society must decide in favor of one or two things: either abstracts only of papers are to be allowed and the discussions strictly limited, or the alternative of still further dividing the Society into two main sections for the first day must be selected. We understand that the program is so arranged that there will be no great difficulty on the first day in separating the surgical from the medical papers both sections to be handled simultaneously,

thereby doubling the time, to a certain degree, available for that day.

We deem it proper to call attention to this fact, as each member will have time, from the receipt of the JOURNAL until the calling of the meeting to order, to reach his own conclusion, the decision being thereby facilitated.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

MINUTES OF THE TWENTY-NINTH ANNUAL SESSION.

HELD AT ALEXANDRIA, LA., MAY 12-14, 1908.

*REPORT OF DR. F. M. THORNHILL, OF ACADIA, PRESIDENT OF THE
LOUISIANA STATE BOARD OF MEDICAL EXAMINERS.

Mr. President and Gentlemen of the Louisiana State Medical Society:

About fourteen years have elapsed since the statutory enactment creating a State Board of Medical Examiners for the State of Louisiana, and the board has been making annual reports of its official acts to this Society since that time, which are matters of record to be found in the transactions of the Society for the several years covered by that period, and it now becomes my duty to make known to you the work of the board since the last meeting of this Society. Since that time there has been a change in the personnel of the board. The second term of Dr. A. F. Barrow expired during last year, who had been on the board since its organization, and for several years had been its honored and efficient President, and had rendered the board able and valuable services and had been with it so long that he had come to be regarded by the other members as an indispensable part of it. Dr. Barrow's place as a member of the board was filled by the appointment of Dr. J. G. Martin, of Lake Charles, who we have every reason to believe is capable of discharging the responsible duties incumbent upon him and will prove worthy of the honor bestowed. In this connection I regret to call the attention of the Society to the fact that the term of Dr. C. D. Simmons, who has been with us for the past six years will expire in a short time, and the Society is called upon at this session to select names to be sent to the Governor, one of whom shall be appointed to fill the vacancy. In leaving the board, Dr. Simmons will carry with him the sincere respect and confidence of its members, and we sincerely trust that his successor may be just such a man in every particular. The board has held but one examination since the last meeting of this Society. The Spring meeting of the board for 1907, occurred May 9th and 10th, of that year, and the Society met on the 14th, 15th and 16th, of the same month and year, less than one week after the meeting of the board, in fact we had not completed our labors, when the Society convened. The board

*N. B.—This Report and the one following were received by the JOURNAL April 20, 1909, with the request to publish as a part of the minutes of 1908.—Gladly!—Ed.

meets in May and October, of each year, for the purpose of holding examinations. The May meetings are usually appointed for the day following the close of Tulane University, in order to accommodate the graduates of that institution and those of the schools of other States, the most of which also close somewhere in the neighborhood of the same time. Tulane's commencement will occur this year on the 20th day of May, and the board will convene the following day, May 21st, for the purpose of examining all graduates presenting themselves, who possess the necessary qualifications. The last examination was held October 15th and 16th, 1907, at which time 27 candidates appeared for the board's certificate, (23 whites and 4 colored), 22 whites and 3 colored made the required average and were granted license to practice medicine, (25 in all). For the certificate of mid-wifery 15 applied, (11 whites and 4 colored) all of which, except two colored unfortunates, were granted license. Since the last meeting of this Society the board has filed six injunctions against as many parties for the illegal practice of medicine, of which number two have been sustained by the courts, and the parties perpetually enjoined from the practice of medicine. Four cases are still pending which we hope to have made final as soon as they can be reached in the regular process of the courts, making allowance, of course, for the delays of those tribunals, which are frequently annoying and disastrous to our cause. One party against whom an injunction was filed, promptly broke camp and left the State, and left us, the board, to hold the bag, as is often the case. The board is very much handicapped in its efforts to enforce the law, from the lack of funds and by an unwillingness on the part of local societies and individual members of the profession to bear their full share of the responsibility. It would require an inexhaustible bank account to enable the board to prosecute all the illegal practitioners in the State, indeed if this had been done, it would be an easy matter to understand the cause of the late financial panic and the present tight money market. The members of the board not infrequently receive letters from irate physicians peremptorily demanding that certain persons practicing without license be enjoined, but conclude with the admonition, whatever you do, don't use my name in connection with the case. This will give you a faint idea of some of the difficulties under which the board labors. With no funds with which to prosecute and many of the profession unwilling to come out in the open and assist, the board is often unjustly assailed and the law declared to be a failure and a farce. In the opinion of the board, or at least of its President, a serious blunder was made, when the law was changed from a criminal one to a civil process. It is clearly the duty of the State to bear the burden of the prosecution of illegal practitioners of medicine, and I believe the legal profession will bear me out in the statement that no civil action possesses the terror for law-breakers that a criminal prosecution does, and I sincerely trust that the criminal feature of our medical law may be restored by legislative enactment in the near future. I wish to call the attention of the Society at this point to a fact which does not seem to be generally known to the profession, and that is, that Sec. 12 of Act 49, of 1894, and which relates to "itinerant vendors of any drug, nostrum, ointment or application of any kind, intended for the treatment of disease or injury," etc., was not repealed by the amendment of 1896, and it is still the duty of District Attorneys to prosecute this class of violators of the law. This was the decision of the Supreme Court growing out of a case carried up from my own parish, (Bienville,) soon after I came on the board seven or eight years ago. About that time a spectacle fellow, by the name of Freddo, came to Arcadia, proposing to cure everything from hip-joint disease to piles, with glasses. The grand jury happened to be in session at that time,

and the flagrant manner in which he was swindling the people was brought to the attention of that body at my own suggestion and he was indicted and arrested. His counsel made the plea that the case did not belong to the jurisdiction of the criminal court, which was sustained by the trial judge, but the District Attorney contended that Sec. 12, under which defendant had been indicted, had not been repealed by the amendment of 1896, and on that point appealed the case to the Supreme Court, which was sustained by that tribunal and the case was remanded for trial, but when it was finally tried on its merits, defendant was acquitted on the plea that he was not practicing medicine within the meaning of the Act regulating practice in Louisiana. This case demonstrates our need of a broader legal definition of the practice of medicine. But notwithstanding these difficulties, it is gratifying to the board to be able to report that we are called upon, less and less frequently, to prosecute quacks, and our chief trouble arises from under-graduates, and graduates who are unwilling to come before the board. It is also a source of gratification to be able to report from year to year marked and substantial progress along all the lines of medical education. The candidates for the board's certificate, as a rule, not only display a more thorough knowledge of medicine, but the foundation for the study of their profession seems to be laid in a broader and more liberal education, but there is still room for improvement in the scientific and literary qualifications of some of the recent graduates in medicine. A number of the leading medical colleges of the country have materially advanced their curriculum of study and raised their entrance qualifications in the last decade, and the effect is apparent in the class of graduates they turn out. On the other hand, we have reason to believe that there are a few colleges which do not pay strict regard to their published entrance qualifications, and their course of instruction is not as thorough as could be desired, and as a result their graduates fall below the standard when the test is applied. A good sign of the times we believe is the disposition on the part of medical colleges to consolidate and thus increase their teaching facilities and to command the respect and support of the public as well as to attract the attention of rich philanthropists, who may be looking for worthy institutions of learning to endow. Several such mergers have been perfected within the last year, one in Missouri, one in Minnesota, one in Kentucky, one in California and others may have escaped our mind, so we indulge the hope that we shall soon, not have more medical colleges, but fewer and better medical colleges. The Louisiana State Board of Medical Examiners is in full accord with every effort of the profession to raise and advance the standard of medical education and we believe that the examining boards of the different States have been potent factors in bringing medical education to the high plane on which we find it in the United States today. The board is fully alive to its responsibility to the State Society, and to the profession, and is endeavoring in so far as it is able to do exact justice to all parties concerned. We strive to make our examinations practical, submitting such questions as we believe are best calculated to elicit the candidates' knowledge of medicine, avoiding as far as possible theoretical and catch questions, and in every instance endeavor to temper justice with mercy.

SUPPLEMENTAL REPORT OF DR. FELIX A. LARUE, SECRETARY
LOUISIANA STATE BOARD OF MEDICAL EXAMINERS.

Mr. President and Gentlemen:

Although the President of the State Board of Medical Examiners, Dr. Thornhill, has presented his report to the Society, I beg your indulgence to add a few words to what he has just said.

As you have been told some good work has been done by the State Board, to which many of the country members can testify, but what remains to be done is far greater and can only be brought to a successful issue by the active coöperation of each and every member of our profession with those members of the Legislature who are in sympathy not with us, I shall say, but with the good cause espoused for the welfare of their constituents.

The Board, as you all know, was not created only to crush the medical graduate with an additional burden, the State Board examination.

What have we antagonizing the successful workings of the Board? First of all, we must admit that legally any one who has passed the State Board has at present the right to hang up his shingle with any sort of alluring sign, advertising his pseudo wonderful and impossible powers to the public.

Now, it seems to me most important to check, if possible, that beguiling way of practising medicine by inserting an advertising clause in the amendments to be proposed at Baton Rouge.

I do not mean for an instant that Doctor So and So could not have his name, office, or residence address in the newspapers, with or without his specialty mentioned, but if in the opinion of our State Medical Society such a person is advertising to cure any special disease or diseases, and a fortiori any ills, which we, as the representative body of the profession in this State know are incurable, then, I say, the State Society should have the legal right to authorize the State Board of Medical Examiners to revoke the license of such a charlatan or to attain such a result through the courts, which would appear less autocratic, but more dilatory.

The charlatan is a dangerous and suspicious character, and as such, should be dealt with severely. He may be highly educated and professionally skillful, but the moment he steps out of the path of ethical rectitude he must be held in check.

Class legislation cannot be charged against us if such an amende be offered, for we will all be on an equal footing with the survival of the fittest.

The newspapers harbor quackery by accepting their enticing, lengthy (the longer the better), and good paying ads.

As one of our eminent clergymen quite recently said, "The Press is a factor for good, for it molds public opinion, and public opinion rules the world."

Personal liberty, some may advance, is assailed by such legislation. My understanding of personal liberty is the freedom every one possesses to do good and not harm, especially to others.

Primum non nocere is the shibboleth of the honest physician. We could not pretend to do away entirely with the quack, but such measures would certainly greatly curtail his business, and thereby proportionately diminish his advertising expenses.

I realize, nevertheless, that my friends of the Press will take exceptions to all this, and otherwise obstruct any such measures, but I feel that we are honestly convinced of the advisability of such a step, if we want to succeed in protecting the public.

Other amendments worth mentioning are 1st, to allow any member of the Board to file injunction, and not that it be necessarily the President of the Board, much time can be saved by this procedure. 2nd. Inserting Gynecology as one of the subjects to be examined on. 3d. A penalty clause should be attached to Section 14, to include also the practice of midwifery without being legally registered. This would not apply, however, as stated in Sec. 5, of the present law, to the so-called midwife of rural

districts and plantation practice, who are not considered as practicing midwifery as a profession.

An important and spreading understanding has taken place between several State Boards regarding reciprocity, to which I was formerly opposed; but the feasibility and practicability of that system have been substantiated here and there, so that I am now a convert to that measure, but in a modified form.

Any physician practicing medicine for a certain number of years, say ten or twenty, could be granted a reciprocity license, providing satisfactory evidence of character was officially transmitted to this Board by a reputable Medical Society, where applicant last practiced, and that qualifying data be furnished by the last State Board of Medical Examiners before which he appeared.

I will now, with your permission, read you a bit of news which is of very great importance to all of us, as you will see. It consists of portions of the decision rendered by Judge Fred D. King, of Division B, Civil District Court, New Orleans, April 30th, 1908.

The defendant will appeal to the Supreme Court, which can hardly render a decision before next winter.

[Attention is here directed to a decision recently rendered by Judge Frederick D. King, of Division "B," Civil District Court, with extensive quotations. (Allopathic State Board of Medical Examiners vs. Leon Williams, Record No. 80,095.) Owing to its length this excerpt, with Dr. Larue's permission, is omitted. Same is filed with the original report of Dr. Larue, Secretary.]

I cannot too loudly call your attention to the fact that there are many physicians who have passed the State Board of Medical Examiners and are practicing without having fully complied with the law and hence are not legally qualified. They expose themselves to being reported as such to me entailing annoyances on all sides. Furthermore, by their negligence they nullify their eligibility to membership in any of our Medical Societies.

Doctor Irion, President of the State Board of Health, and myself, have gotten many to rectify their legal status, but there are quite a number who, for some inconceivable reason, still procrastinate.

Now, gentlemen, I have taken up a good part of your time with this long report, but I felt it my duty to acquit myself as best I could, so forgive me, and with the hope of keeping your trust, I say thank you.

LOUISIANA STATE MEDICAL SOCIETY NOTES.

THE CALCASIEU PARISH MEDICAL SOCIETY held its annual meeting April 6, at Lake Charles. The following officers were elected: President, Dr. N. S. Craig, of Jennings; Vice-President, Dr. Temple Smith, of Lake Charles; Secretary-Treasurer, Dr. George Kreeger, of Lake Charles.

THE ATTAKAPAS CLINICAL SOCIETY met at Lake Charles April 6. The following papers were read: "Carbuncle and Its Treatment, with Especial Reference to Carbuncle of the Face," by Dr. Gordon Holcombe, of Lake Charles; "The Management of Pelvic Infection," by Dr. S. M. D. Clark, of New Orleans; "Report of a

Case of Fœtal Decapitation, Under Unusual Difficulties," by Dr. J. T. Abshire, of Leroy; "Therapeutics of Cardiac and Renal Diseases," by Dr. J. D. Weis, of New Orleans; "Report of an Unusual Case of Compound, Comminuted Pott's Fracture, with Operation," by Dr. A. J. Perkins, of Lake Charles. "A specimen of carcinoma of the stomach, removed at operation," was exhibited by Dr. Espy M. Williams, of Patterson. Several cases were exhibited. The attendance at the meeting was quite large, and the session was in every way a pronounced success. The local profession tendered a supper to the visiting members. The next meeting of the Society will be held at New Iberia in July.

THE TANGIPAHOA PARISH MEDICAL SOCIETY held an interesting meeting at Amite, April 15, with Dr. J. G. Smith as President and Dr. J. L. Lenoir as Secretary.

THE VERMILLION PARISH MEDICAL SOCIETY had a good meeting in Abbeville, April 10, and elected Dr. C. J. Edwards, President; Dr. M. R. Cushman, Secretary and Treasurer. Dr. C. A. Schilling was elected a delegate to the State Medical Society in New Orleans, May 4, 5 and 6.

BI-PARISH MEDICAL SOCIETY.—At a regular meeting of the Bi-Parish Medical Society held in Coushatta, La., on Wednesday, April 7, 1909, the following answered to roll-call: Z. T. Gallien, W. T. Williams, J. T. Keaton, C. E. Edgerton and W. A. Brylston.

Rev. C. F. Staples invoked divine blessing on the meeting and J. T. Stephens delivered an address of welcome, which was responded to by the President. The meeting then proceeded to business. The secretary being absent, Dr. J. T. Keaton was appointed Secretary pro tem. Reading of minutes of the last meeting was dispensed with.

Dr. C. E. Edgerton gave a short talk on the importance of more accurate diagnosis and treatment.

In lieu of a paper, Dr. Keaton made a few remarks on a case of imperforate hymen in a child of six months; also detailing a case of imperforate hymen of pin-hole variety in a pregnant woman.

The president made the following appointments:

Dr. Joe Bath, of Natchitoches, as a member of the House of Delegates of the State Medical Society and on the program for the next meeting of the Society. Scientific papers—Surgery Paper,

by Dr. C. E. Edgerton and Dr. E. L. Sanderson, to be discussed by Dr. J. B. Hargrove and Dr. E. W. Breazeale; on Practice, papers by Drs. Z. T. Gallion and W. N. Huggins, to be discussed by Drs. Jac Levy and J. B. Pratt; on Gynecology, papers by Drs. Keaton and Tier, to be discussed, by Drs. Joe Bath and J. S. Stephens.

The officers elected to serve for the ensuing year were as follows: President, W. T. Williams; Vice-President, Dr. C. E. Edgerton; Secretary and Treasurer, Dr. Edw. Breazeale.

There being no further business, the meeting adjourned to convene at Natchitoches, La., on Wednesday December 8, 1909. (E. W. BREAZEALE, Secretary.)

THE CLAIBORNE PARISH MEDICAL SOCIETY met in regular quarterly session at Homer, April 13. In the absence of Dr. J. W. Day, President, Dr. L. T. Waller was chosen President pro tem.

Election of officers, which was postponed from the January meeting, resulted in the re-election of Dr. J. W. Day as President; Dr. P. Gipson, First Vice-President; Dr. J. F. Simpson, Second Vice-President; Dr. L. T. Waller, Third Vice-President, and Dr. W. L. Stone, Secretary and Treasurer.

Dr. L. T. Waller was elected delegate to the State Medical Society meeting at New Orleans, May 4.

Dr. James F. Gladney was elected to Society membership.

The Medical Society organized an Anti-Tuberculosis League as a branch of the State organization, the officers of the Medical Society being elected to the same positions in the League. (W. L. STONE, Secretary.)

THE FRANKLIN PARISH MEDICAL SOCIETY met in regular session April 13. The following officers were elected for the year 1909: Dr. W. A. Mecum, President; Dr. C. L. Ramage, Vice-President; Dr. L. F. Robinson, Secretary-Treasurer. The Society adjourned to meet on the second Tuesday in July, 1909.

LIVINGSTON PARISH ORGANIZES.—On April 3 the physicians of Livingston Parish met at Denham Springs and organized into a Parish Society, with the following officers elected: President, Dr. T. B. Odom, French Settlement; Vice-President, Dr. W. W. Faust, Albany; Secretary, Dr. Montgomery Williams, Denham Springs; Treasurer, Dr. W. H. Bridges, Weiss. Board of Censors—Drs. G. A. Minton, W. W. Faust and Montgomery Williams. Com-

mittee on Public Health and Legislation—Drs. T. B. Odom, W. H. Bridges and H. M. Faust.

Application will be made at once to the State Society for a charter, so that Livingston Parish may become a part of the State organization.

Medical News Items.

THE TEXAS STATE MEDICAL ASSOCIATION will meet in Galveston, May 11, 12 and 13, under the presidency of Dr. H. W. Cummings, of Hearne. Dr. Ira C. Chase, of Fort Worth, is still Secretary and worthy editor of the *Journal* of the Association.

The program announced is an excellent one, and the Galveston Medical Society have arranged a delightful social schedule for the members and their ladies. A number of guests of the Association are announced, including some from New Orleans, viz., Drs. S. P. Delaup, E. D. Martin, R. M. Van Wart and Isadore Dyer. Dr. Charles H. Mayo, of Rochester, Minnesota, is down for a paper on "Goiter and Its Surgical Treatment," which promises a special inducement.

THE A. M. A. MEETING.—Atlantic City, and June 8-11, are the place and dates of the A. M. A. meeting, and those who plan to go should make sure of hotel reservations at an early date. Exceptional interest has been taken in this meeting, and many foreign men of distinction are expected as guests of the several Sections. The local profession should encourage the New Orleans representatives among the Section officials by a large attendance. We are represented in the Section on Obstetrics and Diseases of Women by Dr. C. Jeff Miller, as Secretary; in Surgery by Dr. Rudolph Matas, as a member of the Executive Committee; in Hygiene and Sanitary Science by Dr. J. H. White, as Chairman; in Diseases of Children by Dr. W. W. Butterworth, as Secretary. The growing importance of New Orleans as a medical center would seem to urge an even larger representation in the field of medical education.

DISTINGUISHED TEXAN VISITOR.—Dr. W. M. Brumby, the Health Officer of Texas, paid New Orleans a flying visit in April. The doctor maintains his interest in his college of graduation, Tulane,

and he has many friends and college-mates who reside here. Dr. Brumby announced that the State of Texas proposed making some radical provisions for the sanitary and therapeutic care of the lepers in Texas, and that this would be done at an early date.

SENN CLUB.—At the meeting of the Senn Club, held March 26, it was decided to perpetuate the memory of Nicholas Senn and to bring before the public, lay and professional, the valuable services rendered by Dr. Senn. The means to be employed for this purpose will be decided on later. Dr. Alex. Hugh Ferguson was unanimously elected President of the Club, and Dr. Arthur MacNeal was re-elected Secretary.

THE AMERICAN PROCTOLOGIC SOCIETY will hold its eleventh annual meeting at Atlantic City, N. J., June 7 and 8, 1909. Headquarters and place of meeting, Haddon Hall. Officers—President, George B. Evans, M. D., Dayton, Ohio; Vice-President, John L. Jelks, M. D., Memphis, Tenn.; Secretary-Treasurer, Lewis H. Adler, Jr., M. D., Philadelphia, Pa.

AMERICAN UROLOGICAL ASSOCIATION.—The annual meeting of the Association will be held at Atlantic City, N. J., on June 7 and 8, 1909. The headquarters and place of meeting will be the Marlborough-Blenheim Hotel.

THE UNIVERSITY OF LOUISVILLE ANNOUNCEMENT.—The several medical colleges in Louisville have united to form the Medical Department of the University of Louisville, with Dr. T. C. Evans as Dean.

ARMY MEDICAL CORPS EXAMINATION.—A preliminary examination will be held July 12, 1909, for candidates for admission to the Medical Corps of the Army. Successful candidates, so desiring, are at once commissioned in the National Reserve Corps and thereafter receive full pay. They are then sent to the Army Medical School at Washington, D. C., where they receive an excellent eight months' post-graduate course, at the end of which they are re-examined. Those successful in the final examination are commissioned in the regular Medical Corps, these appointments being permanent.

Applicants must be between 22 and 30 years of age, graduates

of medicine, and must have had a year's hospital training or its equivalent in private practice.

As a result of legislation in 1908, the Medical Corps was much enlarged and its pay increased. It now offers attractive promotion and good remuneration. First appointments are made in the grade of First Lieutenant, with a salary of \$2,000 annually. In three years there is promotion to Captain, carrying pay of \$2,400, which in two years becomes \$2,640. A Major's pay is \$3,000, which, after ten years' service, becomes increased to \$3,600. A Lieutenant-Colonel receives \$4,500 and a Colonel \$5,000.

In case of retirement for disability or by reason of the age limit (64 years), medical officers receive for the remainder of their lives three-fourths of their annual pay at the date of retirement. The position, therefore, offers an assured future, free from the vicissitudes of old age, sickness and loss of practice.

At many army posts medical officers are able to add to their income by engaging in private practice in the adjacent communities, and at the same time derive professional benefit from an increased variety of cases.

In addition to his pay, each medical officer receives a good house for himself and family, with light, heat and water free. An ample supply of instruments, books and medical journals is furnished by the Government. Each army post has a well-equipped hospital. Two horses, with forage, care and stabling for same, are provided for each medical officer below the rank of Major.

The army service offers good opportunities for the general practice of medicine and surgery with exceptional chances for the study of tropical diseases and for scientific research. That these opportunities exist and are taken advantage of is shown by the work of such men as Reed and Carrol in yellow fever, Sternberg in bacteriology, Ashburn and Craig in yaws, and Gorgas in the sanitation of Havana and Panama.

Unusual chances for travel are now afforded by our many foreign possessions. When traveling on duty, officers receive an allowance usually more than sufficient to cover all expenses. Leave of absence for a month on full pay is allowed each year, and, by taking leave while in the Philippines, visits can easily be made to India, China, Japan, Russia and Australia, or a return to the United States made through the Suez Canal and Europe.

The present is a peculiarly favorable time for admission to the

Medical Corps. Owing to the increase made in 'the corps last spring, there are a large number of vacancies, so that successful candidates are sure to be commissioned at once, and promotion will be more rapid for men who enter now than for those coming in at a later date.

For further information apply to Major W. P. Chamberlain, Medical Corps at Jackson Barracks, La. (phone 248 Hemlock), who will be glad to meet prospective candidates either at the Barracks or at such other place as may be convenient.

Circulars containing full information and blanks for application will be mailed on request.

THE LONE STAR STATE MEDICAL SOCIETY.—Under this name the negro physicians of Texas have organized, says the *Texas State Journal of Medicine*. Dr. J. U. Jemison, of Texarkana, is President, and Dr. R. E. L. Holland, of Temple, is Secretary. There are about 150 negro physicians in the State, but no separate race list has been kept by State officials.

MEDICAL INTERNE.—The Government Hospital for the Insane at Washington, D. C., needs internes at \$600 per annum. Promotions to higher positions are made as vacancies occur. The examination will be held June 16, and only graduates of reputable medical colleges of two years will be considered. Both men and women will be admitted. Applicants must be unmarried; age limit, 20 years or over. Applicants should apply to United States Civil Service Commission at Washington, or to the Secretary of Pension Examiners at any city where such are located.

MEETING OF THE MISSISSIPPI MEDICAL SOCIETY.—The Mississippi Medical Society adjourned April 15, after a very successful meeting. Dr. D. W. Jones, of Brookhaven, was elected President; Dr. E. F. Howard, Treasurer, and Dr. Thomas Purser, Secretary. The next meeting will be at Oxford, on the second Tuesday in April, 1910.

TEXAS INSANE ASYLUMS.—Texas has three asylums for the insane, and they are all full. It is estimated that there are 1,500 in the State waiting for admission.

COURSES AT THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.—Lecture and laboratory courses in Tropical Medi-

cine, Public Health and Sanitation, including school and factory inspection, have been inaugurated at the New York Post-Graduate Medical School and Hospital, and will be given with the co-operation of the United States Army and United States Navy Medical Corps.

PERSONALS.—Dr. E. S. Keitz has returned from Europe. The doctor spent the past year at Vienna visiting the clinics.

Dr. W. P. Chamberlain has returned from Washington, where he presented a paper before the American Society of Tropical Medicine.

Mr. E. H. Walsdorf, of this city, has been appointed a member of the State Pharmacy Board.

Dr. G. S. Wilson and Dr. H. C. Cole have established the Bogalusa Hospital Association and Training School for Nurses.

Dr. Paul T. Talbot, of this city, read a paper before the American Society of Tropical Medicine in Washington, D. C., last month.

Dr. H. L. Sutherland, of Rosedale, Miss., was elected a delegate to the American Medical Association.

Dr. J. E. Slicer has been elected Mayor of St. Joseph, La.

Dr. E. D. Newell, of St. Joseph, La., has sold his sanitarium to Dr. J. S. Lilly and Dr. J. Adams, and will be associated in the future with his brother, Dr. E. T. Newell, Chattanooga, Tenn., where they will have a sanitarium. The doctor's many friends in Louisiana wish him much success in the new location.

REMOVALS.—Dr. W. F. Stroud has moved from Boggan, Miss., to Pinola.

Dr. G. G. Daniel, from Poland, La., to Pitkin.

Dr. Geo. B. LeSueur, from Baton Rouge, La., to Gonzales.

MARRIED.—On April 8, 1909, Dr. Thaddeus Park Bell, of Andersonville, Ga., and Miss Sallie Lee Bell, of Algiers.

DIED.—On April 16, 1909, Dr. W. W. Payne, Meridian, Miss., at the age of fifty-nine.

TULANE NOTES.

THE EXTENSION COURSE OF LECTURES were completed in April with the series of topics presented by Dr. C. W. Stiles and Dr. F. Creighton Wellman. To those privileged to listen to these lectures

considerable instruction was derived upon the negro question, hook-worm disease and the menace to the white race of the South, as outlined by Dr. Stiles; while the lectures of Dr. Wellman equally impressed all with the necessity for the study of parasitology in disease and the great commercial importance of tropical diseases.

THE TULANE EXAMINATIONS began April 19, and will continue at intervals until May 20. The commencement program, as announced, is a great development over previous years. The exercises begin on Friday, May 14, with the Newcomb Class play; Saturday, the Medical Class hold their exercises, including the planting of an ivy on the new campus, and a list of interesting features at the function, to be held at the Hutchinson Memorial, at night. After this the Class of 1909 will have a final supper.

Monday and Tuesday the other departments will hold various and interesting exercises, all culminating in the graduation exercises at the French Opera House on Wednesday, May 19, at 10 o'clock in the morning.

There are about 115 applications for graduation in the Class of 1909 Medical.

TULANE NIGHT, APRIL 17, proved a success from the point of attendance and returns to the Athletic Association, but the medium in the play selected might have been less stupid and more refined.

PERSONALS.—Prof. J. B. Elliott, Jr., and Prof. W. W. Butterworth attended the Mississippi State Medical Association meeting on April 13.

Prof. George Dock represented the Faculty as a delegate at the Council on Medical Education of the A. M. A., which met in Chicago on April 5. Dr. Dock also attended the American Society of Tropical Medicine meeting in Washington on April 10. This meeting was also attended by Prof. J. B. Guthrie.

SUMMER COURSES.—Both the Postgraduate and Undergraduate Departments will offer summer courses to physicians and medical students, respectively, beginning about June 1. Information regarding these courses may be had by addressing the respective Deans.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Consumption, How to Prevent It and How to Live With It. By N. S. DAVIS, A. M., M. D. F. A. Davis Co., Philadelphia, 1908.

Dr. Davis has written a thoroughly practical book. He handles the subject in such a way that the intelligent victim of consumption can read it with profit.

The chances of recovery and the possibility of prolonging life are truthfully and plainly set forth. It is the kind of book which the physician can recommend to the patients and their relatives. STORCK.

Pulmonary Tuberculosis and Its Complications. By SHERMAN G. BONNEY, A. M., M. D. W. B. Saunders Co., Philadelphia and London, 1908.

It is with considerable satisfaction and pleasure that we review this excellent work of Dr. Bonney.

The labor involved in the writing of a work of this magnitude was great indeed, and we know of few other men in America competent to undertake it. Dr. Bonney has proven that he is not only an accomplished student of tuberculosis in all its phases, but that he also has the faculty of presenting the subject in an interesting manner. Every detail of any importance up to the time of its issue is fully and intelligently dealt with.

The chapter on auscultation is unusually full, and it is this most important part of the diagnosis of pulmonary tuberculosis that we must be ever on the alert. For, the recognition of the early evidences of the disease may mean the saving of a human life, or, at least, its prolongation, and at the same time, the prevention of the extension of this dreaded and destructive disease.

As regards the importance of climate, as a factor in the treatment of tuberculosis, we are as one with the author. We think it incontrovertible that a dry climate, with a minimum of dust in the atmosphere, allowing the patient to live the greatest number of hours in the open air, will go far towards making for recovery.

The section on therapy is exceptionally strong. Regarding the use of tuberculin and bacterial vaccines as therapeutic agents, we read:

"As a result of my investigations, which were pursued largely along clinical lines, the following conclusions are suggested:

"1. In general, it may be stated that the administration of bacilli emulsion is of undoubted efficiency in some cases of long standing afebrile pulmonary tuberculosis.

"2. That the remedy also possesses possibilities of an injurious influence.

"3. That the demonstration of an increase in cough and expectoration shortly after the injection is not necessarily indicative of its harmful effect.

"4. That the persistence of these clinical manifestations, together with fever and greater physical weakness, despite an attempted discrimina-

tion regarding the dosage, may be accepted as definitely conclusive of its detrimental action.

"5. That in the event of severe mixed infection with considerable temperature elevation, it is highly inexpedient as a rule, to attempt the production of an increased tuberculo-opsonic power until after the amelioration of the secondary infection.

"6. That the administration of bacterial vaccines derived from the secretions of the patient is often indicated in the presence of the constitutional and bacteriologic evidence of mixed infection.

"7. That, in view of the numerous possibilities of error incident to the opsonic findings, discriminating clinical study is absolutely essential in the determination of the size and frequency of the dosage.

"8. That despite the uncertainties of autogenetic vaccines, a justification of their employment is found in the desperate character of the cases to which they are given, and their superiority over the various sera formerly used.

"9. That in some cases bacterial vaccines present possibilities of benefit far beyond the limits of former therapeutic efforts.

"10. That the role of the opsonic index in vaccine therapy still remains an experimental study, to be approached with the utmost consideration, but in a spirit of receptive inquiry. The data thus far presented suggest that this feature should remain for the present sub judice."

We agree with the author that "Save under very puzzling conditions, recourse to the old tuberculin of Koch, by subcutaneous injection is unnecessary and unwarranted."

But we cannot agree with the author when he says that the careful employment of the opthalgo tuberculin reaction seems to be divested of all disagreeable or dangerous features. It was our experience in clinic work at the Charity Hospital that in spite of the most careful precautions some very disagreeable, if not dangerous results followed its use on several occasions. We abandoned its use for the safer and more satisfactory vaccination method of von Pirquet, which we are using at present, and so far find to be reliable.

Of the von Pirquet method the author says: "The test has been applied by a considerable number of observers, who have reported in the main fairly uniform results, corroborating the conclusions of Calmette."

The specialist, as well as the general practitioners, will find much in this work of interest and instruction.

STORCK.

Publications Received.

W. B. SAUNDERS & COMPANY. Philadelphia and London.

Constipation and Intestinal Obstruction (Obstipation), by Samuel Goodwin Gant, M. D., LL. D.

Epoch Making Contribution to Medicine and Surgery and the Allied Sciences, collected by C. N. B. Camac, A. B., M. D.

Principles and Practice of Physical Diagnosis, by Jno. C. Da Costa, Jr., M. D.

LEA & FEBIGER. Philadelphia and New York, 1908.

Modern Medicine, Its Theory and Practice, edited by Wm. Osler, M. D., assisted by Thomas McCrae, M. D.

J. B. LIPPINCOTT. Philadelphia and London.

Appendicitis and Other Diseases of the Vermiform Appendix, by Howard A. Kelly, M. D.

International Clinics, by Leading Members of the Medical Profession Throughout the World. Vol. I, 19th Series, 1909.

WILLIAM WOOD & COMPANY. New York, 1909.

Text-Book of Embryology, by Frederick Randolph Bailey, A. M., M. D., and Adam Marion Miller, A. M.

P. BLAKISTON'S SON & COMPANY. Philadelphia, 1909.

Manual of Operative Surgery, by Jno. Fairbairn Bunnie, A. M., C. M., Vol. I: Operations on the Head, Neck, Nerves, Trunk, Genito-Urinary System.

F. A. DAVIS COMPANY. Philadelphia, 1909.

Conservative Gynecology and Electro-Therapeutics. A Practical Treatise on the Diseases of Women and Their Treatment by Electricity, by G. Betton Massey, M. D. (Sixth Revised Edition).

MISCELLANEOUS.

Annual Report of the Surgeon-General of the Public Health and Marine Hospital Service of the United States, for the Fiscal Year, 1908. (Washington Government Printing Office, 1909).

Thirty-fifth Annual Report of the Medical Director of the Cincinnati Sanitarium, For the Year Ending November 30, 1908.

Reprints.

The Principles and Technique of the Wassermann Reaction and Its Modifications, by Howard Fox, M. D.

Journalistic Suggestions For Medical Writers, by Llewellyn Eliot, M. D.

Further Observations on the Roentgen-Ray Examination of the Accessory Nasal Sinuses, by E. W. Caldwell, M. D.

The Intra- Abdominal Administration of Oxygen, by Wm. Seaman Bainbridge, M. D.

On the Use of the Wax-Tipped Catheter for Diagnosis of Kidney Stone in the Male, by Winfred Ayers, M. D.

The Doctor in Court, by F. W. Langdon, M. D.

A Literary Banquo's Ghost; The Man in the Glass House, by A. Frank Lydston, M. D.

Luke. The Physician (Harnack) With Remarks on the Literary, Dramatic and Medical Qualities of the Third Gospel, and The Acts, by Geo. Homan, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR MARCH, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	5	2	7
Intermittent Fever (Malarial Cachexia)			
Smallpox.....			
Measles.....			
Scarlet Fever.....	11	1	12
Whooping Cough.....			
Diphtheria and Croup.....	1		1
Influenza.....	5	6	11
Cholera Nostras.....		1	1
Pyemia and Septicemia	2	1	3
Tuberculosis.....	28	36	64
Cancer.....	21	5	26
Rheumatism and Gout	1	1	2
Diabetes	1		1
Alcoholism	2	1	3
Encephalitis and Meningitis.....	9	1	10
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	27	9	36
Paralysis	4		4
Convulsions of Infants	1		1
Other Diseases of Infancy	15	10	25
Tetanus.....	2	3	5
Other Nervous Diseases	2	1	3
Heart Diseases.....	44	19	63
Bronchitis	5	2	7
Pneumonia and Broncho-Pneumonia.....	22	27	49
Other Respiratory Diseases.....	6	2	8
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach	1	4	5
Diarrhea, Dysentery and Enteritis.....	22	18	40
Hernia, Intestinal Obstruction.....		1	1
Cirrhosis of Liver.....	9	3	12
Other Diseases of the Liver	3	4	7
Simple Peritonitis	3		3
Appendicitis	4	1	5
Bright's Disease	29	22	51
Other Genito-Urinary Diseases.....	3	1	4
Puerperal Diseases	7	2	9
Senile Debility.....	14	9	23
Suicide	8		8
Injuries.....	10	15	25
All Other Causes.....	13	13	26
TOTAL.....	342	221	563

Still-born Children—White, 19; colored, 16; total, 35.

Population of City (estimated)—White, 265,000; colored, 97,000:
total, 362,000.

Death Rate per 1000 per annum for Month—White, 15.49; colored,
27.34; total, 18.66.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 29.94
Mean temperature 65.
Total precipitation 4.57 inches.
Prevailing direction of wind, southeast.

New Orleans Medical and Surgical Journal.

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No. 12

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

A Brief Review of a Year's Progress in Tropical Medicine.*

By JAMES M. ANDERS, M. D., LL. D., Philadelphia.

At the outset, I desire to express my deep indebtedness to the Council and members of this Society for the honor conferred in reëlecting me President, and for helpful suggestions and invaluable assistance in carrying on the duties of that office. An examination of the proceedings of this body since its inception cannot fail of convincing the most skeptical that substantial progress has been made in Tropical Medicine during recent years in our own country. The American Society of Tropical Medicine has, by its work and discussions, created a lively interest in this special branch of medicine, and has served to stimulate investigations that will result in actual scientific achievements. There can be no longer entertained a well-founded fear that the Society will not speedily justify its existence.

*Presidential address delivered at the Sixth Annual Meeting of the American Society of Tropical Medicine, held at the U. S. Naval Medical School, Washington, April 10, 1909.

The urgency of the matter of acquiring sufficient knowledge to supply the United States Government with more well-authenticated facts and authoritative advice is not sufficiently appreciated. Obviously, workers would multiply and knowledge increase as the result of the establishment of schools of Tropical Medicine in America. A similar effect would be produced by the founding of a successful Journal of Tropical Medicine. I would respectfully suggest the appointment of a representative committee from this Society to consider these two suggestions from the standpoints of feasibility and practical utility. It is worthy of record that quite recently there has been founded the Société de Pathologie Exotique in Paris, with Dr. Laveran as President. The first bulletin, containing the proceedings of the meeting of this Society held January 22, was issued in March, 1908.

Tropical Medicine in America, which owes its interesting development to the closer relations each succeeding year, commercially, socially and professionally, of the United States with the peoples of Cuba, Porto Rico, the Philippines and Panama, has continued to attract increasing attention on the part of scientific investigators during the past year. The progress has been influenced mostly by the brilliant researches of men connected with the various departments of our governmental service resident in tropical climes, many of whom are either active or honorary members of this society. In an address to the British Medical Association Sir Patrick Manson stated that the United States—the youngest of the colonizing powers—was the first to grapple with the ankylostoma problem, and, “by her efforts in Cuba, Porto Rico, Havana and Panama, had set them an example and shown what can be done by intelligent and energetic tropical sanitation.” In this connection, reference may be appropriately made to a quite recent article on the subject of “Sanitation of the Tropics, with Special Reference to Malaria and Yellow Fever,” by Dr. William C. Gorgas¹, in which he describes a model organization, and further states that while yellow fever has been successfully stamped out of Panama and Cuba, it could have been done more expeditiously with a better organization. Gorgas also contends that in the municipalities “the same measures that are directed against yellow fever will avail against malaria.”

A review of the sum total of the results obtained by individual investigators would necessitate an unwarranted infringement upon

the brief time allotted for the scientific papers and discussions of this meeting. In this brief resumé of the definite and noteworthy advances, I cannot hope to do more than enumerate such as have impressed me as being of the greatest practical significance. I shall not venture to indicate their precise scientific or biological importance, but rather make brief reference to their clinical value and bearings.

Following the pointing of the way to future developments in the line of the study of the parasitic protozoa *in vitro*, Dr. E. L. Walker has described an ingenious method of cultivating amebæ on cover glasses. Without stopping to give the details (which are published in the *Journal of Medical Research*, February, 1908) of his method, suffice it to state that his results throw doubt on the accuracy of the observations of Schaudinn, who classified the parasitic amebæ of man into a non-pathogenic form—*Entamæba coli*, and a pathogenic form—*Entamæba histolytica*. Walker concluded, from a study of forty-four cultures of parasitic amebæ, that there are no less than ten distinct species. The pathogenic varieties, he thinks, can be finally determined only by the correlation of cultural, morphological, experimental and anatomical studies.

In January, 1908, Ashburn and Craig² reported the results of personal observations upon some twenty-two cases of "spotted fever," of Montana, and seven cases of tsutsugamushi disease. After giving a brief account of each, they point out the wide geographic separation of the two affections, and then proceed to summarize the points of differentiation by means of elaborate parallel tables. While conceding that they present many points of resemblance, "these are not sufficient to overbalance those of difference." Against either of these two diseases there is a single, common means of prophylaxis, to-wit: Avoidance of the infected region. Ashburn and Craig assert that this is much easier in the case of tsutsugamushi disease than in that of spotted fever, "because the dangerous regions are so much smaller and plainly marked off by the very flooding that makes them dangerous, and, moreover, they are not residence sites." In concluding their interesting contribution, these investigators suggest that medical men in the Philippines, where certain cases bearing a resemblance to tsutsugamushi are seen, keep the matter in mind, should opportunities for investigating them be presented.

J. M. Phalan and Henry J. Nichols³ discuss at length the pathologic findings in cases of *schistosomum japonicum*, including the report of a case under their personal observation, and draw a contrast between these and those of infection with closely allied *schistosomum hematobium*. In their case the liver was the organ to bear the brunt of the infection, it being found to be cirrhotic, thus confirming the observations of other observers. Katsurada believes that the cirrhosis of this disease is caused by the ova acting as emboli, although he mentions also a toxin which is elaborated by the worm and plays a part in producing the liver changes.

Phalen and Nichols, however, in discussing the pathogenesis of the cirrhosis, think it difficult to account for the destruction of whole lobules in the presence of but a very few ova. The histologic changes presented by the liver in this form of schistosomiasis are in striking contrast with those observed in *schistosomum hematobium*, according to the observations of Madden, Scheube, Manson and other writers on the subject. On the other hand, in bilharziosis the ova cause profound changes in the intestines and bladder. To account for these differences of the distribution of the ova in the tissues of the body we have the differences in their morphology rather than the location of the adult parasite, since both are found in the portal system, e. g., the branches of the portal vein within the liver and the splenic veins.

Geiger⁴ has made "A Preliminary Report on Gangosa and Allied Diseases in Guam." He divides the cases into three groups: 1. Ulcerations which yield readily to antiseptic treatment. This group is caused by the ordinary pus organisms, the *Bacillus pyocyaneus* being the most common.

Group 2. Ulcerations which yield slowly to antiseptic treatment. It is to this category of cases that the term gangosa should be limited, and it is the one to which belong a large percentage of the cases. Geiger announces the discovery of a specific organism which he has named *Bacillus gangosæ*. This organism was found present in all the active cases, and has never been found in any other condition, although Geiger admits that it is doubtful if it can be distinguished from the bacillus diphtheria by cultural means.

Group 3. Ulcerations which are only modified by antiseptic

treatment. This group is characterized by the appearance of distinct tubercles or nodules, and Geiger thinks that a consideration from all aspects leaves no room for doubting that it is rhinoscleroma.

The importance of the X-rays as a therapeutic agent in chronic infectious granulomata and allied diseases, e. g., lupus, has been generally recognized within the past few years. E. A. C. Matthews⁵ reports highly favorable results from this method of treatment and high frequency discharges in the treatment of leprosy. No other measures were used during the time that the patients were under his observation, except that the ulcerating cases were dressed daily with boracic ointment. Matthews claims that this is "the only method yet tried which has produced any real effect on the progress of every form of the disease." It may be remarked that whilst this agent in his cases—seven in all—gave most encouraging results, the majority were not actually cured, but only markedly improved.

The subject of plague has continued to occupy much of the attention of scientific investigators during the past year, but on the whole no notable advances can be recorded. The rat-flea theory of plague, which had acquired the enviable position of a text-book dictum, has been questioned by W. A. Hossack⁶, who has endeavored to point out what he regards as fallacies in the evidence in its favor.

He states that the *M. rattus*, which was attacked as the principal disseminator, is in reality almost negligible. On the other hand, as shown by the exact figures furnished by the second report of the Plague Commission's work in Bombay, 70 per cent. of all rats examined and 84.6 per cent. of all rats found infected were *M. decumanus*—the brown rat. Further, that the Commission, in their third report, brought forward a modified *M. rattus* theory to the effect that while a few cases of plague may be caused directly by *M. decumanus*, it is only when the disease has spread from the latter to the house-haunting *M. rattus* that man becomes seriously infected.

Hossack then disproves the so-called modified *M. rattus* theory to his own satisfaction, at least. His observations on the rat-flea tend to upset the flea theory and to indicate that there is not one, but many, modes of plague-infection.

In a short abstract of the Plague Commission's work in Bombay, G. F. Petrie, a member, replied to the criticisms of Hossack of the rat-flea plague. He did not regard seriously the skeptical attitude of Dr. Hossack after weighing carefully the experimental evidence of the Commission. One fact relating to the mode of infection of more than passing practical importance, he emphasized, namely, that while the essential agent in the transmission of plague to man is the rat-flea, the Commission do not wish to deny the possibility of other methods of transmission of infection being operative, "but they maintain that these methods are so rarely effective as to be quantitatively negligible from an epidemiological standpoint." (Petrie.)

S. Browning-Smith⁷ discusses rat-destruction operations in the Punjab, and states very decidedly that they are by far the easiest measures to carry out and the ones most readily accepted by the people. His article deals with three methods of carrying out rat-destruction, namely, chemical poisons, traps, and bacterial substances, producing epizootic disease among rats. With reference to rat-poisoning campaigns, it should be pointed out that, while the locality treated is rendered fairly rat-free, the expedient is only a temporary one. Hence, its operations have been limited to two periods during the season—one in September-October and another in February—thus anticipating the two periods of greatest rat fecundity and plague incidence—autumn and spring. The removal of rats by trapping, to be effective, must be carried out continuously, and Browning-Smith recommends that trapping should follow a poisoning campaign, so as to keep the rat population at a minimum. Trapping, it is suggested, should also form an important part of urban sanitary procedure in all towns and villages that are or likely to be centres for diffusing plague-infection. No infective disease, non-communicable to man and animals, has as yet been introduced among rats, although the establishment of a fatal epidemic in this way is much to be desired.

Browning-Smith presents statistics which indicate conclusively that more or less immunity results from systematic rat-destruction. There are certain other measures quite as effective, e. g., evacuation and inoculation, but they involve more interference with the comfort of the people, hence less acceptable than the methods of rat-destruction.

Since the plague bacillus can maintain a successful existence in the living bodies of fleas and rats, the destruction of the latter creatures will tend to exterminate the disease. In this connection, Hossack's recent observations in Calcutta upon disinfection with 1 in 500 acid perchloride of mercury solution in oriental conditions are of particular interest.

The diminished virulence of plague during the last spring months in India is noted by several writers, and this has been attributed to various influences. Nesfield⁸ invites attention to the natural habits and instinctive tendencies of the rat to account for the mitigating tendency of the plague epidemic during the last spring and early summer months. He points out that the decreased virulence of plague during the spring season proceeds hand in hand with the falling off in food supplies, and that the outbreak in the winter is "due to the storing of a great part of the autumn harvest in the dwelling-houses, coupled with the scarcity of food for rats in the field. The natural consequence resulting is a great exodus of the rats from the fields into the villages." It is probable that during the drying process, which lasts from two to six weeks, the rats are strongly attracted, having free access to the grain. Nesfield thinks that famine killed off many rats last spring, and this fact, coupled with a scarcity of food, may account for the mildness of the epidemic at that season of the year. The lessons to be gathered by the natives from these observations are not to store grain in their dwelling-houses and to make windows in their homes. Nesfield believes that the observance of these, and only these, two things will stamp plague out of India.

The success attending wholesale rat-destruction in San Francisco during the epidemic of plague just ended, under the supervisory control of Dr. Blue, is undoubted. For example, when systematic efforts at rat-destruction were instituted about ten thousand rats were captured each week, whereas at present only about two thousand are brought in weekly. The last case of plague reported from San Francisco, be it remembered, began on January 30, 1908.

The opinion of Haffkine, that we shall never get rid of plague unless universal inoculation be adopted, is being called into question. While its efficacy as a temporary expedient cannot be doubted, e. g., where a man is forced to enter a plague-infected

district, when practicable, as Buchanan has pointed out, evacuation is to be preferred where this dread disease is prevailing. Perhaps the best position to take with reference to the question of the prevention of plague is that no single anti-plague measure should be adopted to the exclusion of all others. In this connection it is interesting to note that the records of plague inoculation in the Punjab indicate clearly that the people are gaining confidence in its efficacy as a protective measure. For example, "in 1906 the total number of inoculations was 22,951; in 1907, 40,032, while in the present year, although the incidence of the disease has been much less alarming, it has already risen to 45,775."

In an interesting address before the "Section of Tropical Diseases" of the British Medical Association, Daniels⁹ stated that in practically all tropical diseases some implication of the lymphatic system did or might occur, whether they were due to bacteria, protozoa or metazoan parasites. Both lymphangitis and adenitis, due to skin breaches of continuity from biting arthropods (e. g., ticks, flies, mosquitos) were more frequent than in England. The lymphatic diseases, more especially associated with tropical conditions, were those due to metazoan parasites. Daniels contended that lymphatic obstruction was not confined to the tropics; he himself had seen two cases in England. The real problem, therefore, was why lymphatic obstruction sufficient to cause chronic edema, a rare disease in England, in the tropics might affect 5, 10 or 15 per cent. of the population. He thought the explanation was to be found in the relationship existing between elephantiasis and filariasis—a disease unknown in England. This view was supported by facts of geographical, topographical, racial and sex distribution as well as by those pertaining to the known intermediate hosts.

The theory of the relationship of elephantiasis and filariasis, however, was opposed, notably by Prout, of Liverpool, who believes that elephantiasis is a streptococcal disease.

Phalen and Nichols, of the present United States Army Board for the Study of Tropical Diseases as they occur in the Philippine Islands, in an article on "Filariasis and Elephantiasis in Southern Luzon," state that the results of certain investigations made by them support the generally accepted view that elephantoid disease is directly due to filarial infection. They found that the subject

of elephantiasis showed a lesser percentage of filarial infection than the general population. Whilst filariasis has a pathologic and clinical interest principally from the possibilities of its sequelæ, it is to be recollected that it is not as rare a disease in the Philippine Islands as has been supposed. Phalen and Nichols believe that the Bicol provinces and Davao are the largest and most important endemic foci of filarial disease in these islands. Finally, they believe that the *filaria nocturna* is the common *filaria* of the islands.

Castellani¹⁰ reports interesting observations on palliative treatment of elephantiasis. Hypodermatic injections of various antiseptics, with the idea of destroying the organisms, failed to bring about the slightest improvement in any case. Based on the anatomical features of elephantiasis, more particularly the enormous increase of the fibrous tissue, it occurred to Castellani that thiosinamin, which, according to Hebra, Van Horn and others, has the power of softening various kinds of fibrous tissue, thus facilitating its absorption, might be useful in the treatment of the disease, especially in cases of long standing. Thiosinamin injections were found to be very painful, and hence fibrolysin, which is a water-soluble combination of thiosinamin with sodium salicylate, was substituted. Fibrolysin is obtainable in sterile glass ampullæ, each containing two cubic centimeters of liquid, corresponding to 0.2 gram of thiosinamin. With an ordinary antitoxin syringe, Castellani makes the injections in various parts of the affected regions, after which a sterile pad of gauze is applied at the place of injection and the whole limb is tightly bandaged with flannel. These injections are made every day or every other day, according to the features of the case, for about a month, and then discontinued for a week, "during which time the use of flannel and india rubber bandages was continued." Subsequently, portions of the redundant skin were removed surgically. In five out of seven cases the thiosinamin injections induced a fairly well-marked, though transient leukocytosis. Castellani claims as yet only palliative results from this method of treatment, and states decidedly that, without a constant, well-distributed pressure after methodical injection, best obtained by the application of hard pads and by careful bandaging, no marked improvement is to be expected.

The organism discovered by Castellani¹¹ in 1905 in smears from yaws papules (closely resembling that of *Treponema pallidum*)

has, after confirmation by Wellman¹² and Ashburn and Craig¹³, been accepted as the specific cause of this disease. It bears the name of *Treponema portenue*. Pierrez had previously drawn the clinical distinction between yaws and any of the recognized forms of syphilis.

In his second edition of "Tropical Diseases," Sir Patrick Manson gives thirty-two members of the family Anophelinæ, which have "been shown, with more or less precision, to be efficient hosts of the malaria parasites." Mr. Charles S. Banks¹⁴, entomologist in the Biological Laboratory of the Bureau of Science of Manila, has shown conclusively that *Myzomyia Ludlowii* should be added to the list. Among other interesting facts observed were "the development of the gametocytes into the ookinete and into the sporozoites has been definitely traced in this mosquito, and one person has been experimentally infected by the bite of an infected insect."

The subject of hemoglobinuric fever is one that has a peculiar interest for American internists and the general practitioners of warm countries everywhere. Plehn has recently discussed its causes, prevention and treatment *in extenso*, and his main conclusions are worthy of notice. After showing the malarial nature of blackwater fever, Plehn affirms distinctly that, with few exceptions, the tendency of the European to sicken with blackwater depends on the length of his sojourn in the fever district, the condition being more prevalent when the colonists are of longer settlement than when there is a fresh arrival of newcomers. There are two weighty objections against the malarial origin of blackwater, namely, the frequent absence of malarial parasites from the blood and the failure of quinin therapy; but Plehn has shown by elaborate statistics that the plasmodia are always found when the blood is taken before the commencement of the hemolysis, while they are regularly absent during the height of the illness. The parasites may be seen to disappear spontaneously on the second or third days of the illness without medication.

It is owing to the dissolution of the blood that quick spontaneous disappearance of the malarial parasites from the circulation occurs, and this fact answers the principal objections to the theory that malaria is the origin of hemoglobinuric fever. From the facts adduced by Plehn, it would appear that blackwater fever develops

only after a certain time, "through the action of latent malaria without preceding fever." Protection against this disease can be established by shortening the period of residence in the country where it prevails, e. g., Central Africa.

A certain degree of immunity can also be procured by leave of absence for variable periods of time, and by guarding against violent climatic changes. Plehn, however, bases chief reliance upon systematic quinin prophylaxis to obviate the dangers of malaria and blackwater in particular.

Yersin and Vassal¹⁵ were given an excellent opportunity to study five cases of a disease which they diagnosticated as typhus fever. These occurred among the thousand coolies who had been imported into Nhatrang, Annam, from Tonquin. They tried repeatedly to reproduce the disease in laboratory animals, such as the rat, the guinea pig and the rabbit, but without the slightest success. Experiments on human beings, however, gave contrary and positive results. For example, they injected half a cubic centimetre of blood from one of the patients under observation into a healthy person of the same nationality, the donor being in the second day of the disease. An attack of fever precisely similar to that from which the donor was suffering occurred in the recipient at the end of two weeks. The febrile movement lasted for eleven days, and then ended by crisis, just as in the naturally acquired infection. A second similar experiment gave an incubation period of twenty-one days. The febrile paroxysm did not differ from that of the primary experiment, and ended by crisis on the twelfth day. The specific cause of the disease was not discovered. Yersin and Vassal suggest that the disease is probably transmitted by insects—an hypothesis which would explain the extreme contagiousness of the disease, and also its disappearance with improved sanitation in jails, asylums, barracks and like institutions.

The third report of the permanent commission for the suppression of uncinariasis in Puerto Rico¹⁶ contains much interesting matter. The commission advances the theory that the anemia of uncinariasis is due to hemolysis, and not to hemorrhage, as was formerly believed. It cannot, however, be denied that a capillary hemorrhage from the intestines continued for long periods of time may and does produce severe anemia.

In his paper presented to the British Medical Association on

"Sanitation in Reference to Ankylostomiasis in the Tropics," which paper I have already cited, Sir Patrick Manson¹⁷ stated that the most important measure was the proper disposal of infected excreta. So long as these are scattered over the soil it would appear useless, in his opinion, to employ any other methods having for their object the stamping out of this disease. Manson pointed out the significant fact that the eggs, in the absence of oxygen, would not hatch, or, if hatched out, the larvæ would have no opportunity to get at the human skin. He thought it altogether feasible to get the coolies or native to drop his excrements into a hole in the ground with no pollution of adjacent soil. He added: "That method costs nothing, and, if uniformly and properly and permanently carried out, would be absolutely effective."

W. F. Law¹⁸, who read a paper on "Ankylostomiasis in British Guiana" at the same meeting, expressed the opinion that the question of prevention might be summed up in one word—latrines.

Tropical dermatomycoses have recently been considered by A. Castellani¹⁹, who introduces his remarks with the statement that our knowledge of the subject is far from complete, due partly to lack of opportunity to observe such diseases in temperate climates, and partly to the fact that as soon as patients move from a tropical into a cold climate the clinical features of such eruptions change greatly. According to the results of his investigations into the tropical diseases caused by fungi of the genus *Trichophyton*, there are six sub-classes, as follows: (1) *Tinea cruris*, or "dhobie itch"; (2) *T. albigena*; (3) *T. of Sabouraud*; (4) *T. imbricata*; (5) *T. intersecta*; and (6) *T. nigro-circinata*. His observations indicate clearly that *tinea cruris* or *dhobie itch* is to be separated from the ordinary forms of *tinea corporis*. Mixed infections of *tinea cruris* and *tinea circinata* have been observed. Castellani describes two species of *tinea cruris*, and details at length the communicability, diagnosis, complications and treatment of the disease.

Tinea imbricata, first accurately described by Manson, has lately manifested a much extended distribution, and it will be of interest to this audience to note that cases have been reported from Brazil and other parts of tropical America. *Tinea intersecta*, first described by Castellani in 1907, has since been made the subject of further study and observation by him, having come

across cases among the natives of Ceylon. His clear description of the clinical features and method for the detection of the fungus (which cannot be quoted here for want of space) will render the recognition of the condition free from difficulty. Finally, Castellani, in his paper, described a new form of *tinea*, for which he suggests the term *tinea nigro-circinata*.

J. H. H. Harrison²⁰ reports a case of myiasis in a negro woman who had suffered from a small chronic ulcer on the right cheek. On admission the patient presented a huge, foul cavity, four inches in diameter, exposing the bones of the cheek and face. On syringing the excavation with chloroform water, 100 larvæ of the screw-worm were removed, and upwards of 300 worms in all were recovered. The patient gradually sank and died.

Attention may be invited here to an agreement entered into for three years between Great Britain and Germany for the purpose of combating sleeping sickness in their African colonies, operations to be commenced November 1, 1908. The measures adopted were: "(1) Establishment of segregation camps, especially on the boundaries of the British and German territories. (2) Prevention of infected natives passing into uninfected districts. (3) Notification of infected areas. (4) Effective measures for dealing with animals serving as carriers or alternative hosts of the trypanosome; interchange of experiences, literature and knowledge gained by reasearch work."

A paper of great interest in connection with the subject of Gland Palpation in the Diagnosis of Human Trypanosomiasis, by John L. Todd²¹, has recently been published. As is well known, the Liverpool School of Tropical Medicine maintains three important principles, as follows: "(1) That gland palpation is the most efficient means of diagnosis of human trypanosomiasis. (2) That gland palpation is a most important method of rough diagnosis, since, in the Congo Free State at least, every native with distinctly enlarged glands, other causes being absent, must be considered to be a case of human trypanosomiasis until the contrary is proved. (3) That quarantine measures, dependent in a large measure for their efficiency upon gland palpation, should be immediately applied."

After a careful review of current views in support of these principles, as well as those that strike a discordant note, Todd

reports certain new facts which tend to confirm them. It is obvious that, with the opening up of Africa, for example, and the increased movements of natives over long distances, sleeping sickness will continue to spread, and the writer urges Europeans to do all that is possible "to prevent this extension of the disease which largely results from their presence." It is generally conceded that, of the many measures employed to arrest the spread of this disease, by far the most important and effective is quarantine; and Todd argues that its efficiency will be dependent upon the application of gland palpation, since it is believed that the number of cases which will escape diagnosis is exceedingly small.

As bearing upon the probable remaining duration of life in 102 untreated cases of sleeping sickness, it was found, roughly, that patients commenced to die in a year; "two-thirds of them die within three years, while one-third of our patients are alive and well from thirty to forty months after they were first observed." In the mildest form, the symptoms are negative, save slight irregular or intermittent fever and enlarged glands.

The well-known increase in the large mononuclear leucocytes, which is found in cases of infection with the protozoan parasites, has not been observed by Yakimoff²² in experimental trypanosome infection of certain animals. He employed *Trypanosoma Brucei* and *Trypanosoma equinum*, inoculating them into nine white mice, four white, mottled and gray rats, ten guinea pigs, five dogs and two foxes. These systematic studies showed a variable degree of oligocythæmia and oligochromæmia, and leucocytosis, which reached its maximum on the third day, to be followed by a diminution in the number of these cells (persisting until the death of the animal). No increase in the large uninuclears was observed, but in the absolute and relative numbers of the polymorphonuclear cells. The latter showed, first, a primary increase; second, a diminution; and, third, a secondary increase. The lymphocytes were decreased in number.

The experimental treatment of trypanosomiasis in rats by a committee of the Royal Society has led to encouraging practical results. After employing a number of substances with varying results, the sodium antimonyl tartrate in one per cent. solution was tried. They found that this preparation surpassed all others in its effects upon the trypanosomes in the living body. Thirty-

nine rats injected with *Trypanosoma Evansi* and *Trypanosoma Brucei* were treated with this substance. While some died of other diseases than trypanosomiasis, a satisfactory percentage were living at periods varying from twenty-one to fifty-two days after the commencement of the disease.

Professional interest in the subject of the etiology of beriberi continues unabated. Fraser and Stanton²³ have obtained interesting results from their studies of beriberi occurring in immigrant laborers on the Malay peninsula, it being possible for them to obtain exact information as to their dietary and their methods of preparing the same. The disease prevailed only among those who ate white rice, while no case occurred among 273 persons on par-boiled rice under similar conditions. Again, in coolies who ate white rice for less than eighty-seven days the disease failed to develop. Systematic examinations of the blood and urine of beriberi cases did not show any organisms other than those recognized as the causative agents of other diseases. No cases developed as the result of contact, hence the authors believe that beriberi is non-communicable. Their investigations also showed that place *per se* had no influence upon the development of the disease. The writers, therefore, conclude that beriberi, as it occurs in the Malay peninsula, has, if not its origin in, at least a close relationship with, the consumption of the white rice, and suggest that further studies along these lines should be undertaken. Holst and Frolich²⁴ have published some interesting feeding experiments on pigeons and chickens, in which a disease was produced which resembled tropical beriberi, and, according to their results, the advocates of the etiologic relation of mouldy rice and beriberi seem to have the advantage over those who believe in the bacterial nature of the disease.

Dr. Edward J. Wood²⁵ presented an interesting communication on "The Appearance of Pellagra in the United States" to the College of Physicians, of Philadelphia, November 4, 1908, in which he also referred to its prevalence in Italy and Roumania. Of 196 cases collected by him from the literature and personal letters, seventy occurred in North Carolina. While this disease is met with in two varieties in the Southern States, the acute fulminating or "typhoid" is the more common; it runs a course from a few weeks to three months, and the primary attack invariably proves

fatal from exhaustion. Clinically, this variety is characterized by symmetrical erythema, stomatitis, and often salivation, diarrhea and severe toxic features. This form is unlike anything described in Italian literature, hence virtually a new disease. The chronic variety is similar to that described by the Italians. The subject of pellagra is one of unusual interest and one that has attracted widespread attention during the past year, but, inasmuch as it will be made the subject of a symposium on this occasion, I shall not consider it further here.

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2. *The Philippine Journal of Science*, January, 1908.
3. *Ibid*, July, 1908.
4. United States Naval Medical Bulletin, January, 1908.
5. *Indian Medical Gazette*, August, 1908.
6. Transactions of the Society of Tropical Medicine and Hygiene, Vol. II, No. 11, January, 1909.
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15. *Philippine Journal of Science*, April, 1908.
16. Editorial, *New York Medical Journal*, March 7, 1908.
17. *The Journal of Tropical Medicine and Hygiene*, September, 1908, page 271.
18. *Loc. cit.*
19. *The Journal of Tropical Medicine and Hygiene*, September, 1908, page 261.
20. *The Journal of Tropical Medicine and Hygiene*, October 15, 1908.
21. *The Journal of Tropical Medicine and Hygiene*, August 1, 1908.
22. *Archives des sciences biologiques*, XIII, 3.
23. *Lancet*, February 13, 1909.
24. Editorial, *New York Medical Journal*, January 18, 1908.
25. *New York Medical Journal*, March 6, 1909.

The Relation of House-flies to the Spread of Disease.*

By HENRY SKINNER, M. D., President of the Entomological Society of America,
Philadelphia.

The house-fly, *Musca domestica*, was described by Carl von Linne in 1758. It comes in the order *Diptera* (or two-winged flies, and belongs in the family Muscidae. The transformations are complete, there being four stages—the eggs, the larvæ and the puparium (containing the chrysalis) and the imago or perfect insect.

The egg is white, elongate, oval, cylindrical, a little smaller and more pointed at the anterior end than the posterior. Its length is .04—.05 of an inch and about .01 inch in diameter. In shape it is more or less like a slender grain of wheat and has a groove

*Read at the Sixth Annual Meeting of the American Society of Tropical Medicine, held at the U. S. Naval Medical School, Washington, April 10, 1909.

on the side. The eggs are usually deposited by the female in warm and moist horse-manure in masses in the crevices. Heat and moisture are required for their normal development, and they hatch in about twenty-four hours after oviposition. The freshly-hatched larvæ or maggots are .07 inch in length, tapering at or pointed at the head end and blunt at the other. When fully grown they are from .25 to .40 inch in length. They moult or change their skins three times, and the entire life of the larvæ is from five to seven days. After the third molt it changes to an inactive or resting stage, the pupa or puparium. This is a small, elongate brown, segmented object, rounded at the ends and contains the chrysalis. This latter stage lasts from five to seven days, when the imago appears. Thus, the whole life cycle is about fifteen days.

The body of *Musca domestica* is black; the head has a longitudinal reddish, oval, smooth area on the vertex, with the orbits and adjacent region golden or silvery in some lights; the hairs are black and the antennæ and plume black. The thorax is black, tinged with golden rays on the sides, with three dorsal gray longitudinal bands, the middle one most distinct, the two lateral ones partially interrupted in the middle and continued onto the scutellum; there is a broad lateral golden gray band interrupted by the sutures. The base of the first abdominal segment has a yellowish band interrupted in the middle. On the middle of the end of the two succeeding segments is a triangular mesial golden spot, with an irregular band on each side, and farther down the sides golden; terminal segment, golden. Base of wings, scales and halteres, yellowish white. Legs black. The male differs from the female in the front between the eyes, being about one-third as wide as in the latter, while she is rather the smaller. Length, .22 to .32 inch.

The tongue is comparatively short, fleshy and bilobed and blunt, incapable of biting or piercing the human skin, and is adapted only for lapping up liquids. Allied species which bite may be confused with the house-fly.

The legs are very hairy and the fly, in walking on rough surfaces, uses the tarsal claws, and, on smooth surfaces, a fleshy organ called the pulvillus, which secretes a fluid that enables the fly to hold on to glass or like surface.

This insect will oviposit in horse-manure, decayed vegetables, decayed meats, cow-dung, fowls' dung and human excrement. The

vast majority of them are, however, bred in horse excrement. Further knowledge in regard to the food of the larva is desirable. It would be useful to know about what proportion breed in garbage and in decayed meats, as this is important from a medical standpoint when preventive measures are considered.

HISTORICAL.—The house-fly has long been considered a nuisance, but it was held at one time that they were beneficial insects, owing to the habits of the larvæ in the destruction of effete substances. One writer, in 1890, says, in regard to the destruction of house-flies, "that if such an attempt were both practicable in operation and profitable as to numbers produced, it would still be unadvisable from a sanitary point of view, the annihilation of every house-fly would breed a pestilence." It is thought by many persons, including physicians and entomologists, that the relationship of insects to the dissemination of disease is a new idea, but the facts are quite the contrary, as a brief review will show.

Sydenham (1624-89) held that if house-flies were abundant in the summer, the autumn would be unhealthy. Holscher (1843) took the contrary view. Crawford (1808) believed that insects were instrumental in carrying disease. The literature is replete with instances of the transferring of diseases by insects other than house-flies, but they need not be considered here. Leidy, in 1873, published an article on the pestiferous house-fly, and in 1871 stated that he believed house-flies were responsible for the spread of hospital gangrene during the Civil War.

Sir John Lubbock (1871) also calls attention to the fact that flies alight on decomposing matter and carry that which is impure and unwholesome, notably the secretions of unhealthy wounds, and further says: "Far from looking upon them as dipterous angels dancing attendance on Hygeia, regard them rather in the light of winged sponges spreading hither and thither to carry out the foul behests of Contagion."

By reference to the accompanying bibliography, other references of an early date may be found. C. V. Riley, in 1887, in a general article on insects, speaks of the propensity of the house-fly to carry disease. Celli (1888) fed flies with cultures of the *Bacillus typhi abdominalis* and proved that the bacilli in the dejecta of the fly were virulent. In 1889 Dr. R. H. Lamborn offered three prizes of money for the best essays for observations and experiments upon

various insects that destroy mosquitoes and house-flies, stating method of and capacity of destruction. This stimulated a great interest in that subject among entomologists, and the published results were valuable in many ways.

In 1899 the writer published a brief article calling attention to the danger from the house-fly as a carrier of typhoid fever. The communication was made at a meeting of the Entomological Section of the Academy of Natural Sciences of Philadelphia. The Rev. Henry C. McCook, D. D., who was present, stated that he had visited all the principal camps in the United States and Cuba during the war with Spain, and that house-flies swarmed in the mess tents, and that in many of the hospitals the mouths of the sick soldiers were covered with these disgusting insects. About this time it was held by some that house-flies could not carry typhoid fever, because they did not breed in human excrement. This led Howard to investigate the subject, and he published his paper (1900) entitled "A Contribution to the Study of the Insect Fauna of Human Excrement."

Dr. Victor C. Vaughan, in 1900, read an important paper on the activity of flies in the dissemination of typhoid fever. In 1898, also, treated of the same subject, especially in regard to spreading the disease in camps. The importance of the subject was gradually being recognized and appreciated, and renewed attention was given to it (1904) through the report of the Commission appointed by the Government to investigate and report on the origin and spread of typhoid fever in the United States military camps during the Spanish War of 1898.

In 1902 Howard published an important paper on "How Insects Affect Health in the Rural Districts." In the last few years the literature has grown to considerable proportions, and its interest and importance are being generally recognized by the medical sanitarian and medical biologists. Health boards and other civic bodies are also giving the subject thought and attention. It is to be hoped that in the future the frightful mortality that occurs from this cause in war will be avoided. Few seem to know to what a great extent war is dependent on a knowledge of bacteriology and entomology.

The knowledge of bacteriology, in conjunction with a knowledge of the habits of the house-fly, its settling on all kinds of food, in

addition to its habit of alighting on all sorts of effete germ-laden material, show conclusively that it is a very dangerous insect, so far as the health of mankind is concerned. Its hairy body, legs and feet, in conjunction with the spongy pulvillus, make it an ideal carrier of bacteria. That it is a good destroyer of decomposing and fermenting animal and vegetable matter is also true, but it is so dangerous in other ways that it is incumbent upon humanity to take care of and do away with effete material. If this is done, the fly ceases to be necessary as a scavenger. An epidemic of typhoid fever is not infrequently started by the breaking of a small sewer, emptying into a large volume of creek or river water. How much greater is the danger when swarms of flies settle on typhoidal stools and fly to and alight on food? In the latter case there is a virulent and direct transmission to the alimentary canal of the victim. In some instances at Chickamauga it was necessary to walk through human excrement to get to the latrines. In army camps, to deposit human excrement outside of the appointed place is a crime equal to murder. House-flies swarmed there, and if typhoid fever had not existed it would have been a miracle. During the Spanish War a portion of the Second Regiment, Pennsylvania Volunteers, was quartered on the Brandywine Creek, in Pennsylvania, and the surgeon directed the men to use as a sink an abandoned and bottomless canal boat, in the Delaware River, and not a single case of intestinal disease occurred. This was not an ideal method, but it shows results in the way of contrast.

A source of danger that has probably been overlooked is that arising from the fact that feces often containing the *Bacillus typhosus* is distributed along the tracks from railway trains. House-flies could very readily contaminate food from this source in the homes of persons living along the railroad. About ten years ago there was an interesting law-suit in Philadelphia, probably the first of its kind in the world. Mr. Gabriel Upton sued the city for damages on account of having contracted typhoid fever. A verdict of fifteen hundred dollars was awarded the plaintiff. The case was won largely on account of the great probability that the fever was carried to the individual by *Musca domestica*. The city diverted a sewer into a natural stream that ran by Upton's house and alongside his dining-room. Cases of typhoid fever were proven to exist on the line of the sewer. A large amount of fecal

matter came down the stream, and at times it was necessary to start it going when the water was low. The case was appealed by the city to the Supreme Court of Pennsylvania, but the city settled for the full award of the jury.*

It is hardly necessary to dwell longer on this subject of typhoid fever, as the possibilities of the case are so self-evident. Wherever flies can gain access to material containing the *Bacillus typhosus* they are almost certain to carry it to food.

House-flies have long been suspected of being agents in the dissemination of cholera, and a number of articles have appeared on the subject since 1853. That they contaminate the food of the well from the vomit or dejecta of those ill from the disease, in times of epidemics, is undeniable. The worst cholera months are said to be those in which these insects are most abundant. Nuttall says: "The body of evidence here presented as to the rôle of flies in the diffusion of cholera is, I believe, absolutely convincing." It is also known to carry other intestinal diseases. So far as known, the house-fly is only a mechanical conveyor of bacteria, and is not the host of any known animal disease producing organisms similar to the protozoan organisms that cause malaria, and of which the mosquito is the agent of dissemination.

Those who practiced medicine some years ago will recall the condition of the sick-room of the patient ill with tuberculosis, where some kind of open receptacle was used in which to expectorate, and said receptacle and the surrounding floor covered with house-flies, either feeding or wading. As they are somewhat omniverous and like change of diet, they next reported to the dining-room, in the same house or next door. It was also no unusual thing to see them feeding from the lips of the patient, who did not have enough energy left to drive them away. A number of observers have shown that ingested sputum discloses virulent tubercle bacilli in fly-specks (excrement), and that the bacilli may remain virulent for several weeks. Pus from discharging sinuses and fecal matter from tuberculous patients are also sources of danger in this respect. Various kinds of food-stuffs exposed on the street for sale are potent sources of danger, and liable to contamination by flies which have walked or fed on the sputum expectorated on the sidewalk. Feather dusters are used by the

*Gabriel Upton vs. The City of Philadelphia. Court of Common Pleas No. 4. March term, 1897. Appealed to Supreme Court of Pennsylvania Jan. term, 1899.

vendors of fruit to brush off the larger part of the day's accumulation of street dirt, dried sputum, fly excrement and dessicated horse-manure. What the brush misses the purchaser eats.

Some of the well-known remedies need only be mentioned briefly, as, sooner or later, preventive measures will come to the fore. Wire screens, sticky papers, poison papers, wire traps, fumigation with pyrethrum powder, etc., all have a limited use. It costs anywhere from ten cents to five hundred dollars to screen a house, and it hardly seems fair that stable-owners should impose this tax on their neighbors. Moreover, it might be proper to ask them to pay physicians' fees, nurses' and druggists' bills where sickness is caused by neglected stables.

The keynote to the situation is along the line of prevention. Horse-manure bears about the same relation to the house-fly that stagnant water does to the mosquito. If this insect is prevented from ovipositing in manure, the fly as a pest would be largely a thing of the past. Various substances have been mixed with manure to destroy the fly larvæ, such as kerosene, chloride of lime, "residual oil," lime and phosphates. These have been used with more or less success. Stables should have smooth and hard floors and kept clean, so that manure cannot accumulate. It should either be used at frequent intervals or stored in properly constructed bins or screened apartments. A good method is to ram it tightly in barrels that can be tightly covered. The most economical way of caring for very large quantities has not been determined. In towns and villages it would probably pay to have it collected at stated intervals, as is the case with garbage and ashes. The automobile may become a factor in the destruction of house-flies, as in the near future the horse may have only a limited use. The problem is a very simple one, and as soon as preventive measures are inaugurated more extensively the effective and economical measures will be discovered.

A distinguishd surgeon recently wrote me in regard to this subject as follows: "The matter is one of great interest to me, as indeed is the whole question of the prevention of the multiplication of flies, as a matter in which applied science has made but little progress. The person who discovers a cheap and effective way of destroying flies in and around a given locality will, in my opinion, be one of the great practical benefactors of the race. He

would be as sure of immortality as Lister." If the people went to half the trouble to prevent flies that the surgeon takes to bring about asepsis or antisepsis, the object would be accomplished.

The house-fly problem at the present time involves the awakening of the people to the exigencies of the case, and the necessity of preventive measures and the expense necessary would be justified by the result. The house-fly is distributed practically all over the world, and in tropical and semi-tropical countries it is more numerous and a worse pest than it is in the temperate zones.

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The Positive Differentiation of Hysteria and Psychasthenia—Essential Characters.

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Our regrettable reliance upon the *ipse dixit* of a great name is again illustrated by the reorientation now occurring in our ideas on hysteria. The present "Trend of the Clinical Concept of Hysteria"¹ (*Boston Surg. and Med. Jour.*) has turned, under the guidance of Babinski², towards ideas which were placed in the background by the clinical picture of the "*grande névrose*" drawn by Charcot. That is to say, the earlier conception of Bernheim³ has received its due; and most neurologists, in France at least, have acceded to the proposition that a "hysterical symptom is one susceptible of production by suggestion and of removal by sug-

gestion-persuasion." Bernheim, however⁴, now considers the phenomenon of suggestibility to be the normal and the emotional attacks (*les crises de nerfs*) are for him the only hysteria.

In actual practice, in English-speaking countries at least, the heresies of Charcot have had little influence, except, perhaps, among a few neurologists. The reason for this I shall not attempt to explain.

Let me recall an experiment which Joire⁵ conducted in the early 90's with a girl named Marie. During hypnosis it was suggested that she see her name written upon a translucent card. She was then asked to trace the letters she saw, and did so thus: "M-a-r-i-e." She was again hypnotized, and the experiment repeated, but this time the surface of the card which she had seen was turned away from her against a window, so that any letters would appear reversed as they were seen through the card. She was again asked to trace what she saw, and did so as follows: "e-i-r-a-M" She must, therefore, have perceived that the card had been reversed, for she acted in conformity with that idea; but she did not really *see* the letters, for, had she done so, they would have appeared "M-a-r-i-e." This conclusively proves that she had only the *idea* of the reversed *letters*, which she tried to portray to the best of her ability. She had no sensation: it was not at an hallucination. The ease with which she perceived that the card had been reversed indicates how cautious one should be in having recourse to metaphysical explanations of phenomena.

Bernheim⁶, too, showed in 1886 that the amaurosis and dyschromotopsia in hypnotic states were not sensory defects, but that they were, indeed, simulated, as he believed, unconsciously. Again, the credulity of some observers, that cortical ideas could be inhibited during hypnosis by striking the skull over them with a hammer, should not have been possible, in face of the critique, Jules Soury⁷, who showed that the function under experiment went into abeyance, in conformity with the observer's belief about cerebral localization. For instance, Rainaldi's patients⁸ lost the power of smell and taste during hypnosis when they were tapped over convolutions 01 and 02, while other observers produced this effect only when tapping over the uncus. Similar differences were evidenced in other areas, as Soury bitingly said, "in conformity with the text-books read by the observers."

Such considerations should have long ago undermined the fantastical superstructure which hysteria became; but it was not until last year's discussion at the Paris Neurological Society⁹ that the real destruction of the older hypotheses can be said to have occurred. There, it was unanimously decided "that, among the phenomena usually included in hysteria, there is a special group of symptoms which can disappear under the influence solely of suggestion or persuasion; in particular, certain kinds of convulsive fits, paralysis, contractures, anesthesia, hyperesthesia, of modifications of the special senses and of difficulties of speech; as well as certain respiratory, digestive and other troubles." The genesis of these is fully discussed by the present writer¹⁰. They are more easily induced in states of suggestibility exaggerated by organic disease, which diminishes critical power, the faculty of awareness, which does not concord with suggestion²¹.

It is very difficult for the observer to avoid suggesting that in which he believes. Hence, the constancy with which the stigmata were found; but Babinski¹¹ has not during the last ten years seen anesthesia in cases not previously examined medically. The medical manufacture of hemi-anesthesia is illustrated by the case of traumatic neurosis in which Dupinet¹² saw another expert actually call forth a hemianesthesia which had not been present before. This experiment is not too difficult to be repeated in nearly any hospital ward. The nervous crises which formerly made of the Saltpetrière a pandemonium no longer occur there, because the suggestions of their occurrence no longer obtains¹³.

The finding of causative suggestions in other hysterical manifestations is entirely proportional to technical skill in the search.

It is pretty clear by now¹⁴ that suggestion has no influence over the tendon reflexes, the true cutaneous reflexes, the circulatory and trophic functions^{14a}, the disorder of which may produce dermatographia, urticaria and other eruptions, ulcers, edema, hemorrhage, or gangrene. Nor can the temperatures, nor the secretions of urine, saliva and sweat be influenced by suggestion, except in so far as they are called into action by emotion. Mobility of humeur is a commonplace in hystericals; and this mobility is amenable to suggestion; hence, it is theoretically possible to affect the secretions indirectly by suggestion through the emotions. But positive facts in demonstration of this have not yet been adduced

convincingly. In the numerous cases hitherto presented, trickery cannot be excluded. Medico-legal literature teems ¹⁵ with mythomaniac cases, such as that of the man who confessed to concealing a syringe in the rectum, and in whom, in a moment of excitement, an evacuation revealed two. The number of those cases which "could not possibly have had access to any means of provoking their symptoms" only indicates the looseness with which such negative evidence is accepted; as, for instance, in a case of alternating midriasis I observed in Babinski's clinic¹⁶; for, though the patient's father indignantly repudiated the mere statement thereof, it was found that his daughter had been placing in her eye drops of an atropin solution filched from her employer. Of course, mythomania, a type of moral degeneracy, a form of lack of adaptation, a weakness which resorts to trickery, may be, and generally is, accompanied by suggestibility; so that, academically speaking, a deliberately produced lesion simulating spontaneous disease which the patient is trying to imitate may deserve the term hysteria; for, of course, imitation is one of the forms of suggestion. These considerations are applicable to many cases of so-called neurasthenia¹⁷, very often to the traumatic neurosis¹⁸, and frequently to the false gastropathies¹⁹. The false neurasthenic is a creature who, wounded in *amour propre*, solaces himself by retirement from further wounds; he is a simulator, more or less unconscious, and is curable by a removal of unreal belief. Similarly, a traumatic neurasthenic tenaciously clings to the false, fixed idea which holds him in discord with the environment, until he achieves the solatium he craves. Sometimes, however, the old man of the sea takes so strong a hold that he cannot be cast off. Like the widow, he has nursed his grief until it becomes stronger than he. The gastric neurotic, too, must be cured by the destruction of his erroneous fixed belief in his digestive incapacity²⁰.

All of the foregoing false, fixed ideas are hysterical, as they have arisen in suggestions, whether they originated directly from an injudicious physician, a too sympathetic friend, or indirectly from the gossip of neighbors, or the store of the patient's memories. And all are curable by suggestion, or, better, by persuasion. The latter is constituted by the patient's awareness of the steps traversed²¹; whereas, in suggestion, he does not know how the newer idea has been implanted in his mind; for it is inculcated either by

authoritative assertion or insinuated while his attention is distracted elsewhere; in either case, received without critical examination.

More careful investigation of the psycho-neuroses has now shown that many of the annoying, harassing, indescribable sensations which make life a misery to certain people, have nothing to do with hysteria. They are cenesthopathies²²—that is, disordered impressions from the organs not derived from without; they are somatopsychic affections. Common in the psychoses, they may be quite monosymptomatic, and even unaccompanied by hypochondriasis. They are in no sense hysterical.

Another important kind of symptom not derived from suggestion is those lately placed together by Janet²³ under the title of "Psychasthenia." He has shown how unamenable to suggestion are these. The crises of agitation²⁴ these patients often undergo have been labelled hysteria countless times. They are essentially different, as is the whole clinical picture. The main differentia are:

"Firstly, as to fixed ideas, their duration in hysteria tends to be long; for, though they are easily buried and forgotten, they are resuscitated with great ease and infallibility; whereas, in the psychasthenic, the fixed ideas are very mobile, but keep recurring voluntarily, and indeed become cherished parts of the individual, and are far more difficult to eradicate than those of the hysteric. Secondly, hysterical ideas are evoked by well-defined and not numerous associations, 'suggestions'; in the psychasthenic they are often evoked by apparently irrelevant associations, which are searched for by the patient. Thus the *points de repère* are very numerous, cannot be predicted with certainty, and are often mere excuses for crises of rumination or tics. Thirdly, in the hysteric, the ideas tend to become kinetic, whereas the psychasthenic's constant state of uncertainty causes him to oscillate between 'I would' and 'I would not.' Inhibition is too strong to allow an act, but not strong enough to dismiss the obsession."²⁵

As to the crises, those of hysteria cannot be distinguished from those of psychasthenia or epilepsy, except by the property of being produced and removed by suggestion: for the foregoing criteria demonstrate the invalidity of the distinctions formerly drawn by Janet and others with regard to loss of consciousness, amnesia, automatism and power of arrest.²⁶ Recently, Ernest

Jones²⁷ has insisted upon the need formerly expressed by Janet of studying the mentality between the crises in order to appreciate their significance; and this necessity remains true, although the dissociation hypothesis on which it is based is by no means beyond criticism. Walter Scott²⁸ has recently attempted to rebutt it in a case cured by suggestion without regard to the sejunction of hypothetical buried complexes; and, although his case and argument do not convince, I believe that the synthesis only awaits the labors of men of ability and clinical experience equal to that of such men as Jung, Morton, Prince, Sidis, etc.

The criterion of suggestibility makes necessary a revision of the conclusions of Hoche²⁹ and Heilbrowner³⁰ on hystero-epilepsy. They believe that even fixed pupils and sphincter relaxation may occur in simple hysteria.

But it is now pretty clear that reflex iridoplegia indicates organic disease³¹, or at least, if temporary, a profound intoxication, which may produce also marked suggestibility, which, however, is unrelated to the pupil fixation. But sphincter relaxation may occur during profound emotion, as in the terror-stricken dog reported by Féré³², in which an agorophobia had been contracted from its mistress. The tendency to the loss of sphincter control during profound emotion is a commonplace; and the reinforcement of this by suggestion can very easily prevent the inhibition by which civilized people and domestic animals counteract the emotions which might lead to unpleasant effects. There is a partial loss of consciousness, an insanity, if you will, during the first access of every emotion. Thus, in the emotion accompanying blushing, timidity inhibits voluntary activities; during laughter, the voluntary control is much diminished; the state of consciousness during such emotions has been shown by Sir Arthur Mitchell³³ to be analogous with that in dreams, during which autosuggestions dominate the mind. That hystero-suggestions also are influential in sleep and dreams has been proved by the experiments of Morly-Vold³⁴ and Vaschide and Vurpas³⁵. These observers, by stimulating the auditory, tactile and other senses, provoked dreams in accordance with the stimuli used; thus, a string tied round the ankle caused the patient to dream that a wild animal was lacerating his foot, and so on. All these states are marked by lack of voluntary control, which connotes exalted suggestibility—that is to say, hysteria. This, then, is the relation between facile emotionalism and hysteria.

Emotionalism is not hysteria, except in so far as it favors suggestibility. No one is a greater prey to emotionalism than the psychasthenic; but, as Janet³⁶ has shown, his suggestibility is much diminished; for, though he suffers profoundly on account of his emotions, it is on account of their incompleteness and failure of fruition in act.

The principle is simple enough, but is much complicated by the fact that phobias, tics, and other psychasthenic symptoms may occur in hystericals by imitation (which, of course, is merely a form of suggestion) or as a consequence of organic states. I have now under observation a patient who is at the same time claustrophobic and agorophobic on account of a single fainting attack during cardiac enfeeblement due to an attack of influenza. She is in no sense of the word a psychasthenic; it is a phobia by suggestion. Phobias were cured by suggestion, and, therefore, were probably of the hysterical type in the instructive case recently reported by Scott.²⁸ The Psychoanalysis, not published in the report, is still more striking in this regard. An example of obsessions induced by suggestion and repeatedly cured thereby was related of a kleptomaniac by Bernard Leroy³⁷ at the Congress of Geneva. Irresistible impulsions derived from suggestion caused this woman in turn to fall violently in love with an officer whom she did not know; to passionately long for the death of her husband, and indeed to make all the preparations for compassing his death, until the culmination of her preparations so horrified her that she recoiled and was cured of that obsession at the moment, and finally the intense longing to steal, which she satisfied by robbing the counters of the department stores.

Hysterical tic can usually be cured rapidly. For examples I must refer to a forthcoming article.³⁸

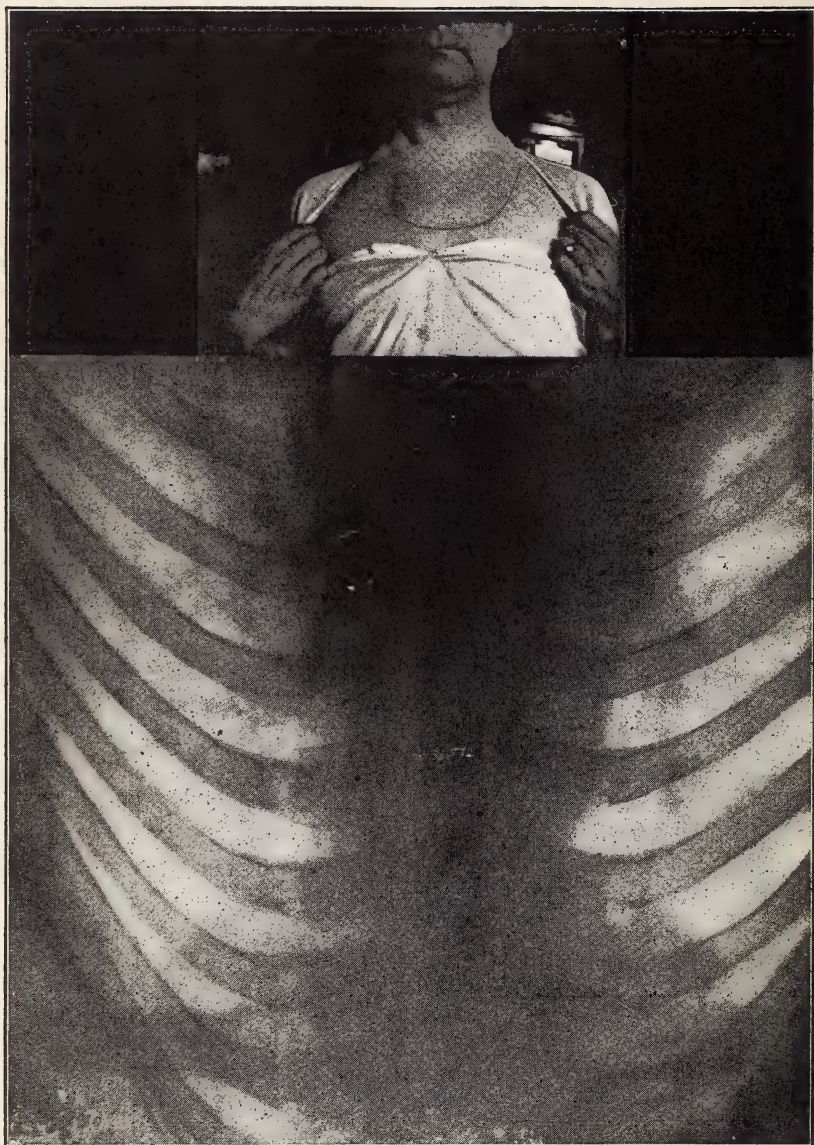
The diagnosis of these pseudo-psychasthenics must be made by the patient's lack of anguish and other emotional accompaniments to the hindrance of his morbid act: by the absence of sentiments of incompleteness with the various 'manias' to which it leads, and by the uncritical irresistibility and absence of struggle of the obsessive ideas and impulsive acts of the false psychasthenic.³⁹

The comprehensibility of hysteria, and the simplification of the treatment made possible by the foregoing facts, adds enormously to the precision, and hence the power of the therapist; and will remove from our profession the hitherto deserved stigma of

inattention to, and ineptitude in face of, the numerous patients suffering from functional diseases of the nervous system and hysteria who have fallen a prey to the charlatan and pseudo-scientist in such vast proportions; it will put an end to the posing of ecclesiastics as mental healers, of metaphysically abused cults, which undermine the collective intelligence; and, lastly, it will give confidence to medical men in their capacity to take their due part in the field of psychic enquiry so avidly pursued by the laity of the twentieth century.

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THYMOKESIS.
ARTICLE OF DR. A. E. FOSSIER.

Thymokesis.*

By A. E. FOSSIER, M. D., New Orleans.

(Thymokesis, the abnormal enlargement of the thymus, described by Dr. Otto Lerch in his preliminary report, "The Thymus Enlargement Associated with Nervous Symptoms," in the *Medical Record* of March 6, 1909.)

Thymokesis means, not an enlargement of the glandular tissue, but an enlargement of its so-called relict found in the adult life, when distended with blood and lymph. All authors agree that the greatest development of this organ is in the fetus or in early infancy. From the second year to puberty it gradually diminishes, till in adults a little glandular tissue is left in its place and is taken by loose areolar tissue.

The arteries supplying the gland are derived from the internal mammary, superior and inferior thyroid. The veins terminate into the left innominate and thyroid veins.

The nerves are derived from the pneumogastric and sympathetic; also branches from the descending hypoglossi and phrenic reach the investing capsule, but do not penetrate into the substance of the gland. The lymphatics are of larger size, arise in the substance of the gland, and are said to terminate in the internal jugular vein.

The glanu is commonly made up of two pyramidal lobes of nearly equal size which meet each other near the middle, near the median line, and are inconstant as to number and size. There may be but a slight lobe present, and again we find a third lobe intervening between the other two. Sometimes the right, and again sometimes the left lobe is the larger. Its size is 5 cm. in length, 3.7 cm. in breadth at the base, and 1.6 in thickness. It weighs about 15gm. It rests on the pericardium, aorta and trachea. It is composed of numerous angular lobes, mixed with connective tissue. The lobes are subdivided into follicles, and each follicle possesses a cortex and medulla in which are spherical bodies imbedded, known as corpuscles of Hassall.

It was first thought that the extirpation of the thymus kills a frog, but these results were not confined by Swale Vincent, because the frogs died weeks after, and that the extirpation of the

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gland in pigs did not have any effect. In fact, extirpation gives few positive results. Some authors claim that as long as the thymus exists it takes part in the production of white corpuscles, and others claim that in early life it aids in the production of red cells.

The administration of some doses of the thymus gland produced excitement, dyspnea and collapse, ending in death, with post-mortem evidence of tumors in the mediastinum, enlargement of the mediastinal gland and consolidation of lung tissue. The character and location of the area of dullness diminishing on change of position make this an easy matter. Furthermore, X-rays and high-frequency currents cause a very considerable and almost uniform diminution of the area of dullness, but do not change its form. This feature is not shared by any of the diseases that might cause error. Treatment promises much, and the prognosis is favorable in all cases. The hygienic treatment, especially a prolonged rest at intervals; a mild, stimulating diet, as a rule fat-making and acting upon the intestines, to be changed to suit varying conditions. Avoidance of emotions in combination with nervines and tonics are required, and finally an electric treatment, with high-frequency currents, given directly over the gland every day, or other day, will accomplish much. All our patients have improved under such a treatment, and a number have been apparently cured. I again call attention to the electric treatment; its effect seems to be permanent. In severe cases, surgical measures may have to be adopted, extirpation of the structure or the cutting off of the blood supply.

The following cases, illustrated by photographs showing the area of dullness over the gland, as made out by percussion, will demonstrate my paper:

Mr. H. S., 42 years of age; merchant. "3," and weighing 118 pounds—his usual and normal weight. His habits are good. He comes from a nervous family, especially on his father's side. Complains of indigestion and nervousness for fifteen years; thinks that this trouble commenced with an attack of typhoid he had at that time. Feels full after eating, passes a great deal of gas, and suffers from severe sick headaches only on left side. Frail man; nervous appearance; enteroptosis; bulging eyes, especially the left; dilated pupils; exaggerated reflexes and cold hands and feet; tremor

manum. Enlarged thymus, dullness of greater density on the left side. Brother underwent treatment for similar troubles.

Mr. E. F.; 26 years of age; six children. Enteroptosis. Complains of sinking spells and a feeling of impending death; loose bowels and intermitting attacks of nausea and vomiting; nervous chills and choking sensations. All organs normal except the mentioned displacement. Thymus large—17-12-6.

Mrs. L.; 35 years of age; obese; 5 feet four inches; 211 pounds present weight. Complains of shortage of breath and constipation. Some hysteric symptoms; irritability of temper; hot flushes, dermatographia; absence of uvula reflex and exaggeration of tendon reflexes. Thymus, 9-8-4.

Mrs. P.; physician's wife; 48 years of age. Partial deafness, which she shares with all members of her family; 5 feet 1 inch; 110 pounds. Suffers from palpitation, thumping in the head, choking sensations, sick headaches and indigestion, which she describes as pumping, bubbling and boiling in the stomach, with sour eructations and heartburns. Prominent eyeballs; some ptosis of right lid, tremor manum, clammy perspiration of hands and feet; dilated pupils; pulse 100; lying down, 80. Thymus very large, especially on right side, with dullness of greater density on same side.

J. W.; colored male; 30 years of age; frail and thin; of medium height. Complains of heartburns and some eructations, especially after eating coarse food. Diagnosis, acid gastritis. No nervous symptoms, and no bulging over upper portion of sternum. Thymus, dullness; size of a dollar.

These are a few of the main histories recorded, all showing the same and similar characteristics of thymokesis.

That something of the gland exists in adults, and even in old age, there is no doubt. Modern investigators are in accord on the subject. Besides, it has been found in frozen sections, and Waldeyer claims that, throughout the whole of life, it not only retains something of its old form, but also that the degeneration is never complete.

From the foregoing, it appears that the function of the gland is especially active during fetal life and infancy, and gradually diminishes, corresponding with the degeneration of glandular tissues, and that some parenchymatous tissue persists during life.

Persistent thymus in adults has been occasionally made out by percussion, although denied by some. The gland, as it always exists in adults, is made up of areolar, and a few glandular nodes has never been percussed till Dr. Lerch, whom I have assisted in these investigations, has shown that it can be made out by this method in every individual up to old age. We have never found any difficulty in outlining the gland. An area of dullness is always present corresponding to the form of the gland, but its size differs very much in each individual. Once the attention is called to this area of thymic dullness I believe that it is not difficult for any one who is familiar with percussion to confirm the statement.

Deep dullness sometimes corresponds to superficial dullness, and again we have found a difference between relative and absolute dullness. The form is always the same, corresponding to the form of the gland. It is trapezoid. The base, at the sterno-clavicular joints, the apex corresponding to the angle of Lewis to a line parallel to it; and below, joining sometimes the heart, dullness on either or both sides of the sternum. The lateral sides of the figure are more or less curved. Usually the area of dullness to the right of the sternum is larger than that found at the left. Percussion is best performed with the patient in an upright position, his head thrown back. Inspection frequently shows bulging and redness, traversed by a few superficial veins over the area of dullness. With the patient in the knee-chest or recumbent position the dullness clears up, to a large extent, the redness blanches and the veins become less prominent. This, as well as frozen sections, proves that blood and lymph fill the gland structure and leave it on change of position.

Engorgement of the thymus—meaning merely the structure left of the former gland, bag-like, containing blood and lymph—is always found associated with functional disturbances of the nervous system. The severity of the symptoms corresponds to the enlargement of the bag-like gland.

I repeat the words of Dr. Lerch: "From the enlargement we can predict the symptoms, and from the symptoms the size of the gland; the more pronounced the symptoms the larger the gland, the more intense the dullness, and vice versa. These symptoms are numerous hysteric and neurasthenic symptoms, great irritability of temper, lack of attention, disturbed sensations, easy fatigue of

mind and body, neuralgias, sick headaches; visceral disturbances of heart, lungs and of the digestive organs are prominent, and some symptoms seem to be almost present. Tremor manorum, dilated pupils, slight ptosis, especially of one eye; more or less prominence of one eyeball, occasionally of both; a rapid pulse, changing from 100 to 120 to 80 and less on change of position; choking sensation, asthma and cough. These last evidently due to pressure. As a rule, the dullness is found larger and more intense on the side of greater disturbance. Exophthalmos of one eye, headache, neuralgia and occasionally thyroid enlargement—i. e., exophthalmos, tachycardia, tremor manorum, enlargement of the gland, with visceral and nervous disturbances.

We have never found these disturbances in individuals in whom the thymic dullness does not exceed the size of a dollar.

The appearance of the patient is that of a nervous person with normal color, sometimes especially good; occasionally, however, pasty. Enteroptosis is marked by enlargement of the thymus when associated with nervous disturbances. Since, in all the functional disease of the nervous symptoms, including the functional diseases of insanity, the thymus is always enlarged (by enlargement is understood the structure filled with blood and lymph, as I have mentioned before), we are forced to conclude that it is the *sine qua non* of all of them—the larger the gland the more severe the symptoms, and vice versa.

The symptoms are easily explained, intracranial venous congestion, over-stimulation of the vagus and sympatheticus, and pressure upon tracheal vessels and nerves in a narrow, unyielding aperture.

All these symptoms may be increased by emotions and lessened by mental and physical rest—the latter permitting the organ to empty itself of surplus blood and lymph.

It is to this duo of symptoms, enlargement of the thymus, coupled with the symptoms of the functional diseases of the nervous symptom, that Dr. Lerch has given the name of Thymokesis.

It is not difficult to make a diagnosis in this disease and to differentiate it from affections that give an area of dullness of the upper portion and to the sides of the sternum like aneurism and dilatation of the aorta.

Hemoglobinuria, or Black Water Fever; its History, Geographical Distribution and Etiology.*

By MILO BRADY, M. D., New Orleans.

Through the courtesy of Dr. A. E. Fossier, in charge of Ward 31 of the Charity Hospital, of this city, I lately had the opportunity of observing a fairly typical case of hemoglobinuric fever in a negro male. This disease in the negro is of itself somewhat unusual. A brief history of this case compiled by Dr. Fossier is as follows:

C. H., colored male; aged 21; sawmill laborer in the swamps of Caddo Parish, Louisiana. Drinks and smokes; occasional sprees. Knows nothing about his family history. Had the usual infantile diseases, gonorrhea and frequent attacks of chills and fevers.

Five days before entrance to hospital had a chill, followed by high fever and bloody urine. On examination, his thoracic organs were found normal; the liver and spleen enlarged; the abdominal organs otherwise normal. Pathological findings: Estivo-autumnal fever type of malarial plasmodia and absence of red cells in urine, but hemoglobin found by tests.

Immediately quinin in large doses was administered; fever fell; the urine became clearer and patient rapidly improved. He deserted in a few days, when he became convalescent.

While there were no difficulties in this instance, it served to recall the worry and trouble experienced whenever, as a doctor practicing in the rural districts, it became my lot to be responsible for the care and treatment of one of those dangerous manifestations of disease.

It is with a sense of considerable hesitation that I undertake the discussion of this subject, realizing, as I do, the extreme diversity of opinions, both as to its etiology, patho-genesis and treatment.

The varied degree of success of the physician practicing in districts subject to the prevalence of any considerable number of these cases is often accepted by the community as a safe indication of his abilities in general, and, as a rule, the one who has established his reputation as successful in the treatment of this disease can well feel assured of his permanent abiding place in the affections of his clientele.

*Read before Orleans Parish Medical Society, March 8, 1909.

DEFINITION AND SYNONYMS.—Hemoglobinuria, or “Black-Water Fever,” is known by a great variety of names, according to the language of the people among whom it is found, or by the Caucasian race which has occupied portions of savage and unsettled lands, and in this way may have developed the disease in their midst. Previous to 1900 it was called hematuria, from the general belief that the condition was due to the presence of free blood in the urine.

In Louisiana it was long known as Creole, or Country Yellow Fever, because the Creoles, as a rule, immunized from infancy by mild attacks of that fever, were more often subject to hemoglobinuria than the stranger or newcomer.

Yellow fever was a disease of the unacclimated, while hemoglobinuria affected the native and country dweller. The belief in the absolute accuracy of this opinion often resulted in confounding the two diseases. In former years the children of New Orleans who had escaped yellow fever in infancy, when they died of that disease in their youth, were usually buried under the name of hemorrhagic malaria. The reverse of this frequently occurred in the country also, because for many years it was thought that yellow fever was confined exclusively to New Orleans and neighboring seaports (Fenner). It was indigenous to New Orleans, and did not extend to the country except under unusual circumstances. Its actual existence in Carrollton, then five miles from New Orleans, was a question that was fiercely debated.

Other synonyms for Black-Water Fever are, in German, *Schwartzwasser Fieber*; French, *Fievre Bilieuse Hemoglobinurique*; Italian, *Febbre Emoglobinurica*. It is also the bilious jaundice of the Southern States, and bears many other suggestive titles.

HISTORY AND GEOGRAPHICAL LIMITS.—The first mention of any disease that resembles what may have been hemoglobinuric fever is found in the Third Book of Epidemics of Hippocrates. Here he discourses upon the presence of black urine in a number of instances, and lays special stress upon the case of one Philippus, “who lived by the Wall,” presumably on the outskirts of the city, who was subject to attacks of fever accompanied by black urine. As the centuries elapsed, mention was made from time to time by the beacons of medical literature of the occurrence of that same condition in urine. Galen, in Rome, about the year 130 to 200;

Paulus Eginus, in the seventh century, and Lancisci, in France, about 1695, and Cleghorn, in England, in 1774. F. T. Alibert, in his "Treatise on Malignant Intermittents," says that the diminution of excretion of urine and the assumption of a black color is very alarming (1807). Dr. John Elliotson dilated upon the bloody urine in intermittent fevers that were contracted by those who participated in the Walcherian expedition, and described that condition as being present in a patient who was suffering from heart disease accompanied by intermittent malaria.

Dr. Gladden Young, of Greenwood, La., who reported a case of intermittent hematuria, was the first one to mention this disease in the United States. He gives a typical history of a child who suffered with chills and fever in November, 1843, which was relieved by quinin. There was a recurrence of the fever on December 11, and on the second day, December 13, a severe chill occurred, accompanied by hemorrhages from the kidneys. Later, a periodical hemorrhage followed each paroxysm of the fever, always accompanied by 'loads' of albumin. He said that he felt that quinin was of no benefit in this disease. In 1847 four cases of fever, accompanied by urine of that type, were reported in the London *Lancet* of November 1.

Despite the continued mention of black urine type from time to time for about 2,000 years, the essential features were not appreciated at all until 1851, when Lebau, a French naval surgeon, saw and described the disease on the island of Novi, off the coast of Madagascar.

A little later a number of other investigators in Africa and elsewhere described it very accurately and mentioned its chief characteristics—bilious vomiting, rapid jaundice, dark-colored urine, and, as a rule, moderate temperature. In 1857 Dr. Dutreuil found black urine, with jaundice, on the banks of the Danube, and so reported in the *Archives Generales de Medecine*, October, 1858. The disease was recognized in 1858 by Dr. Jean Oxamande, in Cuba; other cases were reported by Dr. Theodore Furich, of Breslau, which had occurred in his practice in 1854, and by Dr. James Smith, of Texas, which had occurred in 1859.

Berenger-Feraud found that there were records in the St. Louis Hospital, in Senegal, of Black-Water Fever, that went as far back as 1841, and thought that the disease had existed since

1820. This condition was, however, ascribed to the presence of bile, and not to its true cause.

The first accurate record of this disease in the New World, diagnosed and reported as such, was made by Dr. J. C. Cummings, of Monroe, La., in 1859. He made a record of six cases, which he describes, and refers to its occurrence in previous seasons.

However, despite the many isolated cases reported in various countries from the time of Hippocrates, this disease was very little known to the medical profession till the close of the Civil War in the United States.

Dr. Joseph Jones, late of this city, whose works are an inexhaustible mine of medical information on the diseases of the Southwest in the first half of the century, makes no mention of hemoglobinuria before the Civil War. In his *Medical and Surgical Memoirs*, Vol. 2, he reports reviewing 244 articles on the diseases of the Southwest with especial reference to the various types of fevers. These include articles written from 1808 to about the beginning of the Civil War, and, while he found many articles on congestive fevers, no mention is made of any other condition than that of clear urine.

Dr. B. H. Lewis, in his *Medical History of Alabama*, from 1821 to 1847, reports various types of congestive fevers, yellow fever, nervous fever (typhoid), Black Tongue Fever (spinal meningitis), and other fevers, but none characterized by black urine.

After Gladden Young reported his first case in 1843, and Dr. Cummings in 1859, the Civil War interrupted all medical literary efforts, and it was not till some time later that many cases of this so-called "New Disease" began to be reported from the extreme Southwestern States of Alabama, Mississippi, Arkansas, Texas and Louisiana, and then in other parts of the South. The few isolated cases that had occurred heretofore scatteringly in the most malarious regions of the South, and under the most depressing circumstances, was recognized as increasing in numbers, and about the fall of 1866 began to be frequently observed in the States just mentioned. The cause of this enormous and sudden increase in the frequency and character of this fever can be readily comprehended when one tries to appreciate the material, mental and physical conditions of the people of the States at that time. Mitchell says, in 1870, that the paludal miasma was trebled on

account of the state of labor; that the creeks, ditches and marshes were filled with vegetable matter; the people, mentally and physically depressed, were unable to secure the necessities of life.

Quinin, the essential preventive for those regions, sold for about \$10 an ounce, and was manifestly beyond the ability of the people to obtain.

The first man to mention in literature this disease, then prevailing so extensively, was Dr. Francis Barnes, in the *New Orleans Medical and Surgical Journal* (March, 1867, p. 611). In this article he says that, "in the interior of Louisiana, in the most malarial regions of it, as the Tensas swamps, there is a singular and very fatal disease that has not received a name, and which I shall describe and leave it to another to give it one. * * * It is always preceded by a common chill or paroxysms of intermittents, but finally the patient is seized with one which is more protracted and the following phenomena present themselves: From the moment the chill is ushered in, bloody urine is discharged from the bladder, and, if a blister is applied, bloody serum collects under the raised cuticle. A very small blood-letting causes a syncope, and the blood appears broken down and dissolved. * * * The patient rapidly becomes jaundiced, vomits and purges a great deal of black, tarry-looking substance, which, when spread on a sheet leaves a green stain. If he lives long enough the blistered surface, instead of discharging bloody serum, would discharge a green matter, which colors a poultice like green paint. The sufferings of the patient are terrible so long as he retains his reason, and finally delirium, coma and convulsions close the scene."

Dr. H. Ghent says that the disease had prevailed in the Brazos Bottom of Texas for the last two years (1886-87).

On July 4, 1867, Dr. C. T. Osborne, an old practitioner of many years' experience, saw his first case of this disease in a child. This, with ten others, he reported later on in 1868. His son, Dr. J. D. Osborne, read a paper on the subject of malignant congestive fevers before the Greensburg Medical Society, April 6, 1868. He says that since September, 1867, "I have seen many cases of fevers, very malignant in form, ushered in by a chill of unusual severity, followed by high fever; skin very hot and dry; tongue moist, but heavily coated; great nausea and vomiting; pain in lumbar regions and hemorrhage from the kidneys. The vomited

matter was fluid and black. This stage was soon followed by a jaundiced condition of the skin, seeming to become so in the twinkling of an eye. I left my patient in the morning with the skin as fair as usual, to return in the evening to find him completely jaundiced. The nurse could tell almost to a minute when it occurred. Pulse was very quick, differing very much from the pulse of an ordinary fever. The desire to micturate was frequent and urgent, and usually accompanied by blood. It was entirely new to me when I saw my first patient. I considered him an anomaly, and did not expect to see another case. In a few days I was aroused from this thought by a similar case, and ever since it has been an interesting and painful study—cases coming in continuously, and rarely at less interval than fourteen days. Quinin did not seem to have the usual effect.”

From this time on, many articles and treatises were written on this new and fatal disease, and a number of observers now came into print with their observations for many years previously.

Dr. J. C. Faget, in 1870, asserted that he had seen cases since 1859.

Dr. A. L. F. Hall, of Bryan, Texas, said that it appeared in the Brazos Bottom in 1853.

Dr. D. A. Maybry, about the same time, reported that he had been treating this disease for the past twenty-five years; and Dr. E. D. Daniels, of Alabama, made almost the same assertion.

Dr. S. F. Starley said that recurrent hematuria made its appearance in Fairview, Texas, in the fall of 1856.

Among others of the early writers were Drs. Ben. F. Riggs, of Selma, Ala.; T. S. Sharp, of Natchez, Miss., who reported the disease as prevailing in 1866, '67 and '68. Drs. T. C. and J. D. Osborne, the latter himself being affected with the disease in May, 1868, and numerous others, wrote many articles and investigated the disease at length.

That the tremendous increase in the number and severity of the cases immediately following the Civil War, and the intense interest that it aroused among the physicians practicing in its endemic areas, is readily shown by the number and variety of designations given to it.

Barnes refused to give it a title in 1867. It was called the following names by the authors mentioned:

Black Jaundice, by Ghent, in 1868; Cachemia, by Osborne, in 1868; Cachemia Hemorrhagica, by Owen; Icterodes Pernicious, by Daniels; Hemorrhagic Malaria, by Michel; Malignant Congestive Fevers, by J. D. Osborne; Purpura, by Riggs; Yellow Remittent Fever, by Sholl.

Other names, such as "Yellow Disease," "Canebrake Yellow Fever," "Bloody Chills," etc., all of these names, and many more, were used.

After these first years, in which Black-Water Fever prevailed so malignantly, it has, as a whole, gradually diminished in frequency in those States, as the drainage and financial condition improved and the use of quinin became more general.

GEOGRAPHICAL DISTRIBUTION.—In continuing this description of the geographical distribution, Black-Water Fever is found in all the States of Central America and in those countries of South America bordering upon the Caribbean Sea. It has not been found so frequent in Panama as in certain parts of South and Central America until quite recently, because of the extremely pernicious form of malaria that has long prevailed there. The patient is at once so overwhelmed by the attack that there is not the same changes in the blood plasma and the red cells as would produce hemoglobinuria.

Gorgas, who has succeeded in producing such a remarkable improvement in the death rate and general health conditions in Panama, has at the same time, it seems, brought about an increase in hemoglobinuria, due to the fact that the patients have less violent attacks and survive long enough to become the victims of a series of intermittents, resulting finally in hemoglobinuria.

Cases have been seen in all the West India Islands, but more especially in Cuba, Martinique, Guadeloupe and Trinidad.

In South America, in addition to those countries already mentioned, cases have been seen in Brazil and the Argentine Confederation.

In Europe, the principal seats of the disease are in Greece and the Italian islands of the Mediterranean.

It has been seen in the river bottoms of Spain and Portugal, and found to be especially prevalent along the banks of the Danube, in the Caucasus, and in the flat plains of Russia.

This disease is comparatively unknown in the greater part of

Asia, except in the extreme southern portion. It has been found in Asia Minor, and was quite epidemic in Palestine, though Manson claims that hemoglobinuria was a late importation in India. At this time, it is almost epidemic in the tea-gardens of Assam, the duars of Bengal, and prevails rather extensively in many of the States of British and French East India, in Southern China and the coast of the Malacca Peninsula. Cases have been seen in the islands of the Pacific Ocean, Australia, New Zealand, and others.

The disease is, as yet, rare in the Philippines, but the number of cases before us are continually increasing, possibly due to the same cause as exists in Panama.

This brings us to Africa, where, within the tropics, is the natural home of this disease. This dread scourge prevails on the west coast of Africa, from the Senegal River on the north. Here is found the most malignant and fatal type of that disease in the world.

In certain years, one-third of the Europeans have become subjects to attacks of this disease in some localities, with a death rate of 30 to 40 per cent. This disease is so fatal and so common that in those regions it has been long designated by the name of "African Coast Fever." It is now a common disease in the low outlying plains of Portuguese and German East Africa, though it is rare in Algeria, in spite of the prevalence of malaria, and is peculiarly absent in South Africa.

Hemoglobinuria, a disease of a peculiar nature, following most often several malarial attacks, is characterized by a rapid and often enormous destruction of red blood cells. In regions subject to it this disease may occur when the individual is in a suitable condition, brought about by a variety of causes, such as exposure to cold, fatigue, mental and physical worry, dissipation, disappointment, malarial chill, and, very frequently, immediately after the use of quinin, especially sulphate. Whenever it is found in a temperate or sub-tropical climate, as in our own Southwest, it is more apt to occur in the late summer, autumn or even in the early winter, in the season when the estivo-autumnal parasites are most common.

As a rule this disease follows that infection, yet in a number of instances it has occurred with tertians, or even quartans, though

the truth of this statement, as regards the seasons in temperate climates, is, beyond question, an attack is possible in tropical regions at any time of the year when the proper constitutional condition and provocative cause are present. Statistics show that one is rarely stricken under a year's residence in a Black-Water Fever country, the liability increasing with each additional year that he remains under that influence. Removal from such a district, far from eliminating the danger of an attack, rather tends to increase it. This is often the case following removal from a tropical land, like Panama, to the cool of the more northern latitude of this country. Manson reports that there is more Black-Water Fever in England, due to this cause, than in any other limited area in the most afflicted spots in the world. These same conditions just mentioned are liable to bring on an attack even after a six months' or more residence in an absolutely healthy climate. In the Southern States it frequently follows the first frost of winter. Hemoglobinuria, when typical, has such pronounced symptoms of fever, vomiting, sudden jaundice and intense depression, accompanied by a dark-colored urine, that, considering the history and surroundings, it is usually an easy matter to make a correct diagnosis.

Abstracting from Kraus, one of the leading investigators in the study of this disease, there are a number of theories as to the exact causation of the sudden and extensive destruction of red blood cells which is made manifest by the general condition of toxemia, known as hemoglobinuric fever. It is well known that it is rarely produced except after a number of malarial attacks. These invariably reduce the number of red cells from 10 to 50 per cent. without the production of hemoglobinuria. There is possibly considerable free hemoglobin circulating in the blood, a condition of hemoglobinuria as characterized by anemia, sallow complexion and proneness to easy fatigue. At each sporulation and segmentation of the parasite, a toxin is given off (see Deadrick) that poisons the red cells and prepares them or sensitizes them for penetration by the merozoites. This sudden blanching has been seen in malignant malaria. As the corpuscles are destroyed by repeated attacks of malaria and the toxins are continually poured into the blood, new and immature corpuscles are produced to supply the loss, till there comes a time in which the blood

plasma is brought into the same relation with the blood corpuscles as if it were the corpuscle of a different animal. It is a well-known fact that fewer and fewer corpuscles are destroyed with each attack, and there is produced a certain condition of partial immunity. It is believed that in these repeated attacks that the plasma, to a certain extent, is poisonous to the parasite, so that they cannot sporulate readily. This, then is the condition of latency in which the parasites sporulate regularly, but not with freedom, existing in less number than 300,000,000, and fail to produce a paroxysm. In some respects this is the phase that occurs, as is well known, in yellow fever, in which the toxins are given out so freely that they poison the animal cause in their own excretions. In malaria, as it were, they are simply stupefied and made less active. The blood is, as Kraus says, "in a state of symbiosis between the plasma and the corpuscle, and any shock, such as malarial rigor, quinin, a chilling of the surface—in fact, a hundred different causes—will bring out an explosion."

The pathological causation of hemoglobinuria is generally agreed upon, that the blood is in such state that, from any one of the variety of causes, that a tremendous number of red cells, $1/6$ to $1/3$ of the total number in the body, are destroyed and disintegrated, and that the liver fails to do its duty. This is the destruction of the worn-out red cells and the conversion of hemoglobin into the biliary colored matter of the bile. When this tremendous excess of these disintegrated cells are thrown on the liver "a great deal overflows and is poured out into every tissue of the body, staining them a slight yellow, and rapidly increases to almost an orange; this not being sufficient, the work of removing the mass of broken-down cells is thrown on the kidneys, and as a result the urine is increased and is of a reddish, dark-red, and almost black or porter color, depending upon the total amount of destruction of the red cells. In cases of this kind, the jaundice may be so extensive that it is found in the sweat and saliva. The constant vomiting is an effort on the part of Nature to remove the toxemia that is overpowering the organism.

When an attack of hemoglobinuria occurs a physician at once realizes that he has a serious case on hand. As a rule there is a chill of unusual severity, intense nausea and pains in head and back and all over the body. As I have said before, there is an

increase of dark-colored urine in the beginning, till the fluids may be removed from the body by the constant vomiting and suppression may develop.

Ponfick asserts that hemoglobinuria occurs when $1/6$ of all the red cells in the body are destroyed, though it is well known that $1/3$ of the cells are frequently destroyed in malignant malaria.

According to Kraus, hemoglobinuria bears much the same relation to malaria as tabes dorsalis and general paralysis of the insane bears to syphilis, both following some time after the original attack. It in no way resembles an attack of malignant malaria, which often follows a short time after exposure, in six days, in one instance. In the former disease there is always an interval of some months' residence in an infected territory. The shortest period on record is reported by Brew in a mild case after two months' residence at Panama; a second is made by Plehn after a three months' residence in Africa. Both of these cases were guilty of gross neglect and excesses. The average length of residence at the time of the first attack in 500 cases, quoting from Deadrick, is as follows:

	CASES.	One.	Two.	Three	Four.	Five.	Later.
Burot and Legrand.....	100	6	22	43	20	0	9
Daniels (4 within 6 Mos.).....	114	21	40	27	12	5	9
Berenger-Feraud	185	10	42	79	37	9	8
Veady	51	5	7	28	3	2	4
McElroy	50	2	3	6	0	00	23
	500	44	114	183	74	16	53

In McIlroy's statistics, eleven occurred after ten years and five after twenty years.

Berenger-Feraud has computed in these statistics that the attack occurred in the first year, 5.4/10%; second year, 22.4/10%; third year, 42%; fourth year, 20%; fifth year, 4.9/10%.

One can well see that the great majority are attacked within the first three years' residence. The longest continued residence is reported by Howard, twenty-three years having elapsed before the original attack.

This disease in no way resembles yellow fever in regard to immunity, but it is just the reverse. F. C. Wellman asserts that the disease increases in virulence and liability in geometrical ratio in number of attacks, and that in tropical Africa most people leave after the second attack; some of the veterans, who braved the climate of Africa for a number of years, at last fell victims. Plehn had

five attacks; Cosse reports ten different outbreaks in his own person. Incidentally, he mentions that his original case, in 1888, was the first time that the disease had been observed on the Congo. During a residence of eighteen years on that river, Banks experienced twelve to thirteen manifestations of the disease. In spite of these series, the record was broken by one of Koch's patients, who was stricken ten times in one year.

AGE AND SEX AT TIME OF ATTACK.—My own experience is that the disease is more common among young people of both sexes. The males over puberty, who are most exposed to provocative causes, fatigue, dissipation and wetting of the surface, are most frequently victims of the disease. It is a well-known fact that negroes are less subject to hemoglobinuria than the whites. They seem to be less susceptible to all mosquito-borne diseases. There are many explanations as to these causes. Probably the negro, whom the doctrine of the survival of the fittest has caused to gravitate to the hottest and most insalubrious parts of Central Africa, is, to a certain extent, immunized to malarial fever through constant recurrence in many generations. Possibly the well-known free action of the sweat glands in the colored race may have some weight with the final results.

ETIOLOGY.—There are three theories as to the cause of hemoglobinuria, each of which has strong supporters, and, as a rule, pronounced antagonists:

First of these, and pre-eminent, is the malarial theory; second, the quinin theory of Koch; third, the specific theory of Sambon.

In taking up the first and most reasonable, that of malarial causation of this disease, I will say that there is no question as to the fact that hemoglobinuria practically occurs only in malarial countries, and but rarely attacks a person until he has passed a certain time, one year or longer, and, as a rule, there is a history of repeated malarial attacks. In those rare cases, where there is no record of repeated outbreaks, there is always a previous condition of anemia, showing that sporulation is probably occurring at regular intervals, without there being enough parasites developing to cause a paroxysm. One of the leading authorities on the subject, Deadrick, of Marianna, Ark., is pronouncedly of the opinion that "malaria is solely and essentially the predisposing and often exciting, cause of hemoglobinuric fever." This fact is

well emphasized by the investigations of various authorities, as to the presence or absence of the malarial parasites, before, during and after the attack. Stephens and Christopher have made a number of investigations and have collected a large number of statistics bearing on that point.

The day before the attack, they were found present in 95% of the cases.

The day of the attack, in 70% of the cases.

The day after the attack, in 20% of the cases.

Manaburg gives these results of his studies:

The day before the attack, present in 95.6% of the cases.

The day of the attack, present in 63.9% of the cases.

The day after the attack, present in 17.1% of the cases.

A number of others found approximately the same results, from extensive reaserches. Therefore, this point seems conclusively settled as to the actual presence of a great number of parasites just before the attack, and their rapid disappearance during and immediately after. This fact has been the source of a sharp controversy between the partisans of the malarial and specific theories. The supporters of the malarial theories argue that the disappearance is caused by two methods: First, that quinin is usually given before the attack, and naturally produces its anti-protozoal effect; secondly, and of decidedly more importance, this absence of parasites is due to the rapid breaking down of the blood cells, and as the hemolysis affects the weaker and diseased cells, though sensitized by the toxins, they break down and disappear in the urine, carrying the parasites with them. On this point, Manson and most other authorities are as one in the belief that a sharp attack of hemoglobinuria is often followed by a complete cure of the malaria, all the parasites disappearing with the breaking down of the diseased cells.

The second theory, that it is due to quinin poisoning, is supported by some of the most skillful and experienced observers, such as Koch, the two Plehns, Christopher and Stevens and numerous others. These men affirm that while cases of hemoglobinuria do sometimes occur in persons who have not been treated with quinin, that drug is commonly the exciting cause. Black Water Fever, according to this theory, is a quinin intoxication, and something more. It is not the quinin itself, but the condition of the blood,

whether a plasma or corpuscle, that determines the attack.

Tomacelli collected examples of 104 cases of hemoglobinuria following so closely upon the administration of quinin—from two to four hours—that there can be no reasonable doubt as to its direct influence in the etiology. In several instances one or two grains have produced an attack, and have continued to do so whenever the drug was given experimentally to a susceptible individual. The English Malarial Commission concedes quinin as a very important cause.

Koch reports hemoglobinuria following in 97% out of forty cases. F. Plehn, 24% out of forty-three cases; A. Plehn, 48% out of fifty-five.

In opposition to the quinin-poisoning theory of causation, and to those who dilate on its evil influences, there are others who claim that quinin is an infrequent cause of hemoglobinuria, if at all, and have advanced a number of arguments against that belief; some of them even opposing the malarial etiology in toto. They say:

FIRST. Hemoglobinuria is restricted in geographical range and is absent in some highly malarious localities, where an abundance of quinin is used.

SECOND. Hemoglobinuria does not follow the administration of quinin in maladies other than malaria.

THIRD. In a certain number of cases the prior use of quinin can be excluded absolutely (32 in one series).

FOURTH. The same individual may have an attack following the use of quinin, and later take the drug without any harmful effects.

FIFTH. The severity of the attack has no relation with the size of the dose.

SIXTH. One dose of quinin cannot cause intermittent hemoglobinuria.

SEVENTH. A great majority of cases recover under the continued use of quinin in large doses.

EIGHTH. That the relationship between quinin and malaria is not cause and effect, but coincidence. The Black-Water Fever was known at the time of Hippocrates, twenty centuries ago.

Many statistics have been compiled as to respective ratios of deaths and cures among those who used quinin, and *vice versa*. Such men as Gorgas, Shropshire and Burn assert wonderful suc-

cess with quinin. Under the direction of Gorgas, at the present time in Panama quinin is used hypodermatically, is used in all forms of malignant malaria, including hemoglobinuria, and it is claimed with most excellent success. On the other hand, some of the men who have had most experience in the use of quinin in that disease have discontinued its use, and believe that hemoglobinuria is curative *ipso facto*, and that quinin is a provocative agent.

Kraus, Malone, Martin, Hearsey, Masternan and Katchlow have discontinued its use when hemoglobin appears in the urine.

I here give a comparative synopsis of the statistics as regards the results of the treatment of this disease with or without quinin, compiled from records which I have taken considerable pains to secure:

<i>Treated With Quinin.</i>			
Number of Reporters.	Cases.	Deaths.	Per Cent.
36	2,231	539	24
<i>Treatment Mixed and Not Given.</i>			
15	983	232	23
<i>Treated Without Quinin.</i>			
36	1,727	107	6

This synopsis shows at once the tremendous advantage of discontinuing quinin as soon as blood shows in the urine.

The third is the specific theory of Sambon. This was originated by Manson, but is now most stoutly supported by Sambon and Blanchard. Sambon asserts that Black-Water Fever of humans is a babesia, due to a pyroplasma as yet undiscovered, which remains latent in the blood, like malaria, until some external influence, such as malaria, fatigue, chilling of the surface or the like, awaken to life the latent babesian parasites. He said, at a recent meeting of the British Medical Association, that this disease is no doubt carried by ticks in humans as well as in cattle. Manson suggests that if Black-Water Fever is carried by any known malarial parasites it must have acquired its peculiar powerful hemolytic properties in a as yet unrecognized mammalian or insect host, or that the subject of Black-Water Fever must have been exposed to

some specific impulse, present in Black-Water Fever countries, but absent in other malarial districts.

Macay, in the *Calcutta Medical Gazette*, says that Black Water Fever does not correspond with malaria in its characteristics, but does with "kala-hazar," the fatal endemic fever of farther India. It more closely resembles the Texas Fever in cattle, which is caused by pyrozoma, closely resembling the Leichman bodies of the disease just mentioned. In both hemoglobinuria and kala-hazar, the blood is very labile, and, also, quinin is injurious.

Coulet believes that the *Bacillus megatherium* has a direct causal influence in this disease. O'Sullivan-Beare believes that hemoglobinuria is a condition of general toxemia and is an entirely distinct disease, endemic in certain districts and attacks persons exposed to its influence when the vital powers of resistance have been weakened by the effect of malaria, quinin or various other baleful influences. But it finds its most favorable seat in those who have become invalidated by former repeated attacks of malaria. Such arguments as these convince us that hemoglobinuria and its pathogenesis is still a mooted question, and one that needs close study and investigation.

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The Doctors and their Ethics. President's Address.

By E. D. MARTIN, M. D., New Orleans.

It has been a time-honored custom in this Society that the President, whether he so desired or not, should deliver an annual address, which was to be of such a character as to interest both its members and their friends. After mature reflection, I have

decided to say a few words on a theme which has in many respects become almost obsolete—Medical Ethics. To go deeply into this subject would require too much time, and I fear some might be fully narcotized during the most important points in my argument. I shall, therefore, confine my efforts to a few words about our doctors and their ethics.

Medical Ethics, to the layman, is a law written and enforced by doctors to prevent them from enjoying the privilege of engaging more than six physicians at one time, or consulting eight specialists about the same complaint—an unjust and absurd rule, they say, to which we would rather adhere than save a human life. It was after some discussion on this subject with a patient that I decided, on this occasion, to undertake the rather difficult task of defending the doctor's position, and incidentally paying my respects to the layman.

Let me preface my remarks by saying that the Code of Ethics which governs the physician is based upon the same broad rules which govern all gentlemen, and by the term "gentlemen" I mean that word in its fullest conception.

There is no profession which offers a broader field for good, and at the same time a greater opportunity for the practice of fraud and deceit. Dealing directly with human life, the first principles of which remain a deep mystery to the layman as well as to many who have the audacity to practice medicine, it stands to reason that, to better safeguard life, to better cope with the great problems of health which civilization and our increasing population has thrust upon us, none but the highest order of men, fully impressed with the responsibilities of their duties, should enter the profession.

Fifty years ago, when medicine meant simply a knowledge of anatomy, and diagnoses were made by external signs and symptoms alone, drugs acted as much by their nauseous effects as by any constitutional changes they brought about. When our entire knowledge of medicine was embraced in a few standard books, any close observer would have made a fairly good doctor. But to-day, my friends, the mysteries of the past are being rapidly explained, miracles are numerous, the study of medicine has reached the pinnacle of scientific research; the solution of the great problems of health and hygiene which constantly confront us demand a

preparatory foundation based upon high educational requirements. The medical college of to-day which has no educational standard is a menace to the public.

Not until a high, as well as a uniform, standard of education has been established can the medical profession expect to live up to its Code of Ethics. The necessity of higher education is undisputable. It is impossible for any student of medicine to master the various branches of the profession without a knowledge of mathematics, physics and chemistry, as well as Latin and Greek. Higher education develops the mind, teaches the student to base opinions upon the proper analysis of the problems before him—opinions, as a physician, upon which life may depend.

Quoting from the first section of our Code of Medical Ethics: "A physician," it says, "should be fully imbued with the greatness of his mission and the responsibility he incurs in its discharge. These obligations are the more deep and enduring because there is no tribunal, other than his own conscience, to adjudge penalties for carelessness and neglect; reflecting that the ease, the health and the lives committed to his charge depend on his skill, attention and fidelity."

The conscientious physician fully appreciates the burden imposed upon him, and is ever ready to make even the greatest personal sacrifice to accomplish the most good for his patient. He realizes the necessity for constant study, the importance of medical clinics, the enforcement of sanitary laws and adherence to the Code of Ethics, which alone will keep the profession above reproach. For years he has fought, inch by inch, in every legislature, before every city and town council, to pass such measures as were deemed necessary to raise the standard of medicine and to guard against the dangers of spreading infection and disease, and this fight has been made against the greatest opposition from those who were to derive the most benefit.

I shall not trespass upon your time to quote unnecessarily from our Code of Ethics, but will discuss briefly some points which seem most perplexing to the layman, who, I affirm positively, has, but with few exceptions, no appreciation of the services rendered. The prevalent idea seems to be that a doctor's function is to give relief, and, failing in this, his services are quickly dispensed with and his time counted for naught and not worthy of compensation. My

friends, doctors err; it is human to err, and they are human. The right kind of a doctor, however, rarely errs to the extent of involving life. If most people would be as careful in the choice of their physicians and drugs as they are in the purchase of a horse or the selection of a new bonnet, pay as promptly and in proportion to the benefits derived, and refer all questions of health to the family physician, not because he had cured Mrs. X of an attack of pain or something similar to something else, but because, by his close attention to professional duties, he had acquired a reputation, they would find themselves, in every instance, far better off. The right kind of a doctor will never allow his patient to suffer through his own ignorance, but when complications arise will call in another physician to assist him in reaching a diagnosis. Do doctors disagree? Certainly. If they did not, there would be no necessity for consultation. Their differences, however, are only a matter of opinion based upon a personal experience. The field of medicine to-day is too broad for any one mind to master it; and, while a physician is perfecting himself in one branch, another is acquiring proficiency in another branch, and, by the united efforts of the two, errors are less likely to result. The right-thinking doctor rather courts than opposes a consultation, for, in a serious case, he is more than willing to have another share the responsibility. Every physician knows that any one of his fellow-practitioners is, if reputable, doing his utmost to accomplish the best results for his patient, and he feels it is his duty to protect him under all circumstances, and it is for this reason that he dislikes to take a case from which a reputable physician has been discharged, for he knows that if a competent man has failed, he, too, may fail, and if the failure was due to existing conditions, and through no fault of the attending physician, a great injustice would be done the physician in charge. No physician will refuse to see any case in an emergency; no physician will refuse to consult with any ethical practitioner if approached in the right manner. I, therefore, know that when my friend, the layman, loses his temper and berates the profession, there is something wrong somewhere.

I can see there is a question you wish answered, and that is, How are you to choose your family doctor? Very simply: let him be a man who stands well in his profession, a graduate from a

reputable school, and one who belongs to and takes an active interest in all matters pertaining to his local society, at least. For, by attending meetings only, by constant intercourse with other physicians and the interchange of ideas can he keep abreast with the times.

And now, my lay friends, may I ask you why it is that every effort made by the medical profession to pass any law for your benefit is always opposed? If you can show me the existence of a single statute which has for its object any other than the elevation of the standard of medicine, from which you alone benefit, or the enactment of sanitary laws by which you are protected, I am willing to admit that there might be reason for opposition. What I have never been able to understand is why quacks, the venders of nostrums, and the unscrupulous advertisers, who constantly prey upon the unsuspecting, but not always ignorant class, can wield an influence sufficient to block medical legislation. At the last session of the Legislature this Society asked that a few amendments to our existing laws be enacted to restrict the practice of medicine and midwifery to competent and properly qualified practitioners. An effort was made to compel osteopaths who wished to practice *medicine*, not osteopathy, to qualify under the same conditions as the homeopaths. Did we succeed? Not much. The Legislature of the State of Louisiana gave to the osteopaths the same privileges of practicing medicine as physicians who are forced to take a four years' course in a reputable school and pass the State Board of Medical Examiners. They not only granted them the privilege of practicing *medicine* and *surgery*, but placed in their hands the weapon to conceal their ignorance. If your legislators have no more regard for the lives of their constituents, and you are satisfied to employ the doctors of their creation, it is no concern of ours. We asked that they be compelled to qualify before being allowed to tamper with human lives. This would have proved a death-knell to their future existence; but they very naturally saw no necessity of devoting so much time and study to the science of medicine, when a single act of the Legislature made them qualified practitioners.

The enactment of laws is not, however, the most difficult problem we have to contend with; it is their enforcement. Will the layman ever understand that an ordinance or law regulating sanitation is

made for his special benefit and protection? That when a case of contagious disease exists in his neighbor's house he should be apprised of it, that he may take the proper precautions to protect his family? Do you know that the concealment policy has cost this city millions of money and hundreds of lives? And yet, I regret to say, there are physicians and laymen both who have so little regard for duty as to be parties to the concealment policy.

The layman, my friends, who is willing to be a party to such a crime is not a desirable citizen; the physician who will sanction it is not to be trusted. What he does for you he will do for your neighbor, and some day you will suffer in consequence.

In conclusion, let me beg of you to give more thought to the questions which are of such vital importance to your very existence. Ask your physician's advice in all sanitary measures, be governed by him in matters of health, rather than by some ignorant, interfering neighbor, who can do more harm in one minute than you can ever undo.

Though I feel that I have imposed on your patience long enough, I would not complete my task did I not say a word about our doctors. It has been my privilege and my pleasure to meet with them on numerous occasions throughout the State, during my term of office, and it has been both a surprise and a gratification to see the good work which is going on. Louisiana has nothing to be ashamed of so far as the members of this Society are concerned. It is true many have still to join their Parish Societies, but each year finds the rolls increasing. Our alma mater is fast forging to the front; the Medical Department of Tulane is as well equipped to-day as any other school in this country, and it will not be long before her laboratories, in which she has been deficient, will be doing as good work as any in America. Her staff of teachers are fully awake to her needs, and competent to carry on the work. We must make her the equal of any in America, the superior to all in the South—and we will.

The Classics and Modern Training.

By WALTER MILLER,

Dean of the Academic Colleges, Tulane University, New Orleans.

While fully appreciative of the honor of being invited to appear before this learned body, it is with much trepidation that I venture to address you, even upon a theme that has to do more with that

noble department of study to which my own life is consecrated than with that with which your sessions have had to deal. But, as "no man liveth unto himself alone," so no department of science can live unto itself alone, and medical science and philological science are by no means widely separated strangers. Some of the points of contact between them I wish to emphasize this evening.

In order to see the true relation subsisting between the Classics and Modern Training, we ought first to review the whole history of education. That is manifestly impossible, many times, in the half-hour at our disposal. I can at best but briefly suggest it.

Our whole modern civilization, this age of steel and steam and electricity, with all its triumphs of applied science in the creation of great labor-saving machinery, in rapid transit and the annihilation of disease and time, is a wondrous growth, exceeding in one century in these particulars all that previous history has recorded. But follow this marvelous shoot downward to the stem, and we shall find it is, after all, a graft. This, to use our own Dr. Smith's figure, "was engrafted upon the sturdy stem of the olden culture, a stem that struck its roots deep into the sacred soil of Greece and Rome, through the rich accumulated alluvium of nearly thirty centuries. Into this graft, this new scion, the generous sap of the ancient trunk has been poured abundantly, and a prodigious growth and wonderful fruitage have resulted."

The art of Greece has been the inspiration and the despair of all artists since the day when the lofty spirited Hellenic greatness began to flag. The mythology of Greece has become the language of symbol among all civilized people, of whatever name and tongue. The poetry, the philosophy, the ethics and the science, as well as the arts of Greece, illumine every modern classic page. Says Alfred Baker, Professor of Mathematics in the University of Toronto: "If we should ever think of a people—a chosen people—who had a message and a revelation to the world, that people was the ancient Greeks. We owe them an incalculable debt for our knowledge of art, literature, and science, and of the three our debt is perhaps greatest for their legacy of science."

Now, what do we consider the greatest scientific discoveries ever made? We generally say, for example, (1) the rotundity of the earth, and (2) the solar system, with the sun at its center and the earth as but one of its planets. But those discoveries are not

modern. That the earth is round was accepted by Greek men of science even before Aristotle. He brings forward new proofs that the earth is a sphere, and then goes on to show that it is not a very large sphere; he even gives its approximate circumference. Eratosthenes gives more accurate measurements, making it about 28,700 miles—a little more than one-tenth too large. The distance to the moon was also measured with equal accuracy. (2) The discovery of the solar system we attribute to Copernicus, but it was known of old to the Pythagoreans, and Copernicus was not independent of them. There are, indeed, ancient works extant, maintaining the correct theories, with marginal notes in Copernicus' own hand. Even the precession of the equinoxes was discovered by the ancients and estimated with wonderful precision.

So, in Mathematics and in Architectural Engineering we can still be their disciples. Modern architectural engineers have attempted to discover the solution of the mathematical problems of the most perfect building the world has ever seen—the Parthenon on the Acropolis of Athens—even as they stand solved by us, and have given it up in despair.

And in the line of Mechanics, our present age is not so exclusively the age of invention as we sometimes in our practical conceit imagine. Hero of Alexandria tells of a sphere made to rotate by escaping steam (or, as some interpret it, a flutter-wheel driven by a jet of steam), that is pretty nearly a steam engine, 2,000 years before Watts; and the fire engine he describes is practically identical with the hand-engine in use to-day. Even the slot-machine flourished in Hero's time. This same Hero was much read during the fifteenth and sixteenth centuries, and through him we owe to Greece an incalculable debt in the founding of modern physics and mechanics.

If there is any department of science, people commonly think in view of the incomparable advancement of modern medical science beyond the appalling ignorance of the medicine man of a few centuries ago—if there is any department of science that is altogether modern, wholly independent of the distant past, original in its modern development, that science is the Science of Medicine. Did I not fear that it would be bringing "owls to Athens," I should like to spend the whole of my allotted time this evening in a review of modern medicine and surgery in its relations to the med-

icine and surgery of the Greeks. One of the most amazing things to me in the intellectual history of the world is the fact that the Greeks of the fourth and fifth century B. C., and the Romans of the centuries just before and after the Christian era, for some reason or other, did produce in most departments of thought better work than any of the generations that succeeded them for a thousand years or so. As regards literature and art, the truth is too obvious to need illustration. In the field of medicine it is the same. If a man wished to learn medicine in the later ages of the Roman and Byzantine empires, and right on to the Renaissance, to whom did he go for his knowledge? He went, as far as can be made out, to various handbooks and epitomes of the works of two ancient doctors—Galen, who practiced medicine in Rome in the second century A. D., and Hippocrates, who practiced in Athens in the fifth century B. C. And Galen's own work takes largely the form of a commentary on Hippocrates.

Gilbert Murray calls attention to "an interesting Mss. of a Treatise on Dislocations by one Appollonius of Citium. The Ms. was written in Constantinople about 950 A. D.; it begins with a pean of joy over the discovery of the works of this ancient surgeon, with his elaborate drawings to show how the dislocations should be set. The text was written out, the illustrations were carefully copied. Where the old drawings were blurred or damaged the copies were left incomplete, lest some mistake should be made. Why? Because this ancient surgeon, living about 150 B. C., knew how to set dislocated limbs a great deal better than doctors who lived one thousand years after him. It was a piece of good fortune for them to rediscover his work. And his writing, again, takes the form of a commentary on the fifth century Hippocrates. Hippocrates' own writing does not look back. It is consciously progressive and original."

And so the authority of that old prince of science reigned on until almost our own day. When William and Mary College conferred an honorary degree on the chief surgeon of Lafayette's army in the presence of George Washington, the surgeon responded in a long address urging the New World, unfettered, as our country in its inception was, by the traditions of Europe, to cast the new medicine to the winds and stick to the good old teachings of Hippocrates and Galen!

As Quintilian, like the proud old Roman that he was, boasts with questionable accuracy that satire was a wholly Roman form of literature, so we also have been wont to boast that *Chirurgia tota nostra est*. But only last year appeared at Oxford a book by John Stewart Milne, on "Surgical Instruments in Greek and Roman Times," that must have amazed even the medical profession. The book contains fifty-four pages of plates and eighty pages of descriptions of them, in which the author quotes freely from the ancient authorities, from Hippocrates down. There is a fitness of the instruments to the purpose for which they were made, of which we think only Yankee inventive genius capable; and, what is more surprising still, is that in so many instances they are so exactly similar to the instruments in use for the same purposes to-day. In fact, if found in the case of the twentieth century surgeon, they would in no wise be out of place. The discovery of many of these instruments has cleared up many a description of operations that before were unintelligible. Even in form the various knives show all the patterns common to a modern outfit. The modern principle of all-metal construction was their universal practice, and there was a tendency to combine various instruments in one piece.

In the line of probes, directors, fleams, phlebotomes, specula, catheters, we have produced practically nothing new. Lithotomy appears to have been one of the oldest of what we to-day consider a major operation, and several special instruments were used for it—knives, scoops, forceps and crushers. The operation appears to have been performed quickly and with excellent success. For surgical work on bones we have a fine array of forceps, chisels, gouges, saws, drills, and (most remarkable of all) a trephine almost identical with the instrument of to-day. So common is the mention of this instrument in the classical writers that brain surgery must have been a well-established procedure.

Those old Greeks operated also for cataract, displacing the crystalline lens with a delicate needle; and we have extant fragments telling also exactly how to extract the lens.

But I am bringing my "owl to Athens." Let us return to the real subject in hand.

In all fields alike, whether consciously or unconsciously, we build upon foundations laid by the great thinkers—poets, artists, philosophers, scientists—of the days when man was, both in body

and in intellect, at his best. Even this present age of scientific education is but continuing the work where Greece left off. Others have labored, and we have entered into their labors.

Greece—Rome—the Renaissance—it is one—sometimes fading but never-ending stream of influence from Athens upon the art, literature, education, culture, science of all succeeding ages. We are still the children of the Renaissance, as the Renaissance is the scion of intellectual Attica, and our modern training, despite the fact that Latin and Greek no longer hold the place as educational agencies which they occupied a hundred years ago, is still in the full stream of that older influence.

“There is nothing new under the sun” is nowhere more true or false than in the intellectual world. Sir Henry Maine goes so far as to say that, “except the blind forces of Nature, nothing moves in this world which is not Greek in its origin.” There have been many revivals of knowledge besides the Renaissance; within a few decades, zoology, chemistry, and geology have all been born again. How hard we toil to advance knowledge by introducing some “new” institution, discovering some “new” truth! But truth is eternal; and when our discovery is made we find the real meaning of the poet’s words:

Wer kann was Kluges denken
Das nicht the Vorwelt schon gedacht?

The so-called “new education” makes its proudest *boast* that it is “practical.” That might be disputed. The first thing that we, the people of the most utilitarian age ever known, think of as the “practical” is dollars and cents. None of us object seriously to wealth—of our own—but it is not a high standard by which to measure the really good things of life—not even the practical things. The *curse* of our educational spirit is our tendency to look upon education as a mere tool for money-making. Those who look upon knowledge only from the standpoint of “practical” utility, and translate “practical” with “money-getting,” and explain the useful as “that which may be turned into cash”—such Philistinism is likely to see in the university only a bureau for the delivery of special information, a mere warehouse for literary, medical or legal merchandise, instead of a temple of knowledge

and truth. The enrichment of knowledge and power is not considered, and, therefore, not desired. Too general is the conception in our land that nothing is practical, nothing is useful, even in matters of pure intellect, unless it can be made financially profitable. Are we, brain and brawn, so wholly enslaved to Mammon?

Let us not be misled by what the Philistine world calls practical. In the truer sense of the word, anything is practical that makes a man or a community or a State or a nation stronger or better or wiser; anything that helps a man to live up to the best that is in him, to be true to himself, to his neighbor and to his God. That is practical, and nothing else is, except as it is wrought through such a medium.

With such practical ends in view, therefore, I would ever plead not alone for the old education of proper morals, polished manners, elegant speech, nor yet for the new education of exclusive science, but for the proper balance between the old and the new—the culture of the humanities and of nature as a basis for later specialization. Specialization before breadth is attained will prove to be not power and culture, but weakness and narrowness, cramped and warped. It will be the same, whatever the line of premature specialization. Exclusive devotion from the beginning to the arts and letters is ruinous to our best development, even though that has been the proved and approved higher education of the last four hundred years. So thoroughly approved it still is, that a man of science like Clarence King, late Director of the United States Geological Survey, may say (*Forum*, 1892, p. 23):

“So far as classical culture has brought generation after generation of youths into the presence, and kept them in the daily company of the greatest Roman and Greek poets, conquerors, artists, or philosophers, its effect has been, as no one disputes, to develop the very best modern minds. No less an expert in wisdom than Solomon has said, ‘He that walketh with wise men shall be wise.’ Classical education, at its best, has caused its followers to walk in youth with wise men and men of every form of artistic excellence, every phase of literary and philosophic accomplishment. It has revealed not only the strongest and boldest brain-work of giants, but unveiled all that is most chaste and elegant, most lucid and splendid, in the manner of human expression. From fountains of deepest feeling and springs of sparkling

wit, it led streams of perennial flow into the territory of the student's mind and made thereof a garden. It gave a harmonious grace to the intellectual carriage, mellowed the timbre of literary voices, and induced a composed control of mind with an artist's sense of form. Incidentally, necessity for continued application and rigid philological study forced the habit of work, cultivated memory, and bred a respect for precision and accuracy. It therefore afforded discipline. The crowning reward for experiencing this mode of culture is, however, an enlightened state of mind. The brightest jewel in its crown is ideality."

And President Butler confidently predicts that "no culture will ever be considered broad and deep unless it rests upon an understanding of the civilizations of Greece and Rome. . . . To enter into the spirit of Homer, Sophocles, Demosthenes, and Plato, of Cicero, Vergil, Horace, and Tacitus, and to understand the civilizations and the points of view that they represent, are (from one point of view,) almost enough alone to give the one so fortunate a claim to culture."

And yet, by confining ourselves to such a course, we come to live so much in the realm of the ideal that we ignore or forget the real things around us. The great literatures of the world are not our only source of truth, nor the only scene of beauty, nor the only means of culture. The whole business of any man is to know and to live the truth. He must have eyes to see the truth wherever it may be found; and there are even clearer, surer revelations of truth in God's world around us than there are in the world of letters. "The rocks and shells, the frogs and lilies always tell the absolute truth." The rain-worm or the toad may have truths to tell us in its homely way, if we can but understand its language—verities that may be just as true and sublime as is the ideal beauty of the splendid sculpture of a Phidias or the simple grace of an Homeric epic, or the awful grandeur of an Aeschylean tragedy. And the truths the worm has to reveal of the physical world need not all be sacrificed to the truths the Greek poets and philosophers and sculptors have to tell of the world of the soul. And still less are those glorious revelations of great souls of the days when man was at his best, and that feeling for the ideally beautiful in literature and art to be sacrificed to the search for truths of the merely physical world. Too one-sided application to the study of the

physical sciences will prove even more ruinous to the making of perfect men than too one-sided devotion to the humanities. The appreciation and love of the beautiful, religion, sentiment—these nobler faculties of the human spirit, without whose cultivation no one can be a complete man—are not naturally fostered in such an environment. To have the power of using what is gained by science study, a man must first have been moralized; and, for moralizing him, it will not be found easy, as Matthew Arnold says, to dispense with those old agents—letters, poetry, religion. All true education must build the mind and heart both up and out—out of narrow self into the breadth of divine humanity. The purely scientific education will not cultivate sentiment, nor (it is asserted) will it develop a sense of the relativity of facts; for that reason the purely scientific student cannot be expected to possess a critical spirit. To quote once more from the geologist, Clarence King:

“With all its novel powers and practical sense, I am forced to admit that the purely scientific brain is miserably mechanical; it seems to have become a splendid sort of self-directed machine, an incredible automaton, grinding on with its analyses and constructions. But for pure sentiment, for all that spontaneous, joyous Greek waywardness of fancy, for the temperature of passion and the subtler thrill of ideality, you might as well look to a wrought-iron derrick.”

Both sides of education proved their right to a place, but not to an exclusive place, in any plan of liberal education. Either one, if pursued to the exclusion of the other, will train and develop but one-half of our human nature, and bring forth only half a man or woman. Classical culture, when it has done for the capable student the best it can unaided, has given him culture, refinement, character, fidelity, but has left him behind the times in the development of the race and utterly helpless in the presence of all that makes for the physical and material progress of the world in which he lives. Until a generation ago education went calmly along cultivating only that one side of our human nature, unconscious that it had another side. The last thirty or forty years have seen the pendulum swing clear to the other extreme, and now we often hear radicals on the other wing advocate maiming our human nature by leaving the ideal half to die of neglect

and disuse. This newest education has substituted a new sort of half-man for the old one. "What would be thought of a world-wide school of athletics," says Clarence King, "which would bind up the right leg until it withered and became forever impotent, and make its graduates hop through life on its left? And what student of education could believe it possible that a new great culture would arise" to correct that evil and gravely proceed "to bind up the left leg and make its men hop on the right?" Is there any reason, except the irrational excuse of our American weakness of eternal hurry, why either side of our nature should be so diligently cultivated as to exclude the other; why one half of the mind should be carefully developed and the other just as carefully destroyed? The greatest naturalist of the last century (or, perhaps, of any century) draws the picture of such a sacrifice of culture to specialization in its darkest colors. "Up to the age of thirty or beyond it," writes Darwin in his autobiography, "poetry of many kinds, such as the works of Milton, Gray, Byron, Wordsworth, Coleridge, Shelley, gave me great pleasure, and even as a school-boy I took intense delight in Shakespeare. Pictures formerly gave me considerable, and music very great delight. But now for many years past I cannot endure to read a line of poetry; I have tried lately to read Shakespeare, and found it so intolerably dull that it nauseated me. I have also lost my taste for pictures and music. My mind seems to have become a kind of machine for grinding general laws out of a large collection of facts; but why this should have caused the atrophy of that part of the brain alone on which the higher tastes depend, I cannot conceive. . . . The loss of these tastes is a loss of happiness, and may possibly be injurious to the intellect, and more probably to the moral character, by enfeebling the emotional part of our nature."

If Charles Darwin found the loss of his higher esthetic tastes so lamentable, how much more lamentable must the paralysis of the intellectual power be, when this exclusive devotion to the cultivation of one side of the intellectual nature begins before the mind has fairly developed? But utilitarianism, with its promises of material wealth, is ready with her reply: "Seek ye first money; culture after wealth"; and technical education, without the basis of broad culture, has grown and spread to an incredible extent. "Its essential narrowness and Philistinism increase with its suc-

cess in establishing itself" [this from President Butler], and it promises for a long time to come "to assert its overwhelming ascendancy, until a race of men shall come upon the stage with about as much religion as a threshing-machine and hardly more social charm than a storage battery."

The desired symmetrical training would cost only a little more time, and would it not be worth the additional outlay? I am convinced that it would. There is much to be said in favor of the old curriculum, in which mental discipline, pure and simple, the culture of the humanities and philosophy, are made the chief end of all the work.

When we consider the two great new principles of our age—the conservation of energy, with all the wonders it has made possible in the material world, and biological evolution, with all the marvels it will produce in the physical, and possibly the intellectual, well-being of the race—the irresistible attractiveness of the new education, the triumph of the scientific education, and the tendency of students of "practical" minds to confine themselves to the scientific education, are easily comprehended. The educational pendulum has been swinging backward and forward, ever since modern education in the fifteenth century began, first to one extreme, and then to the other, as if no middle ground were possible. Universities were no new thing when the Renaissance came. They had been established for "practical" purposes; and to the devotees of the "practical" courses the introduction of the classics was an innovation, and the new learning was frowned upon. The humanists of the Reformation period had a battle to fight against tremendous odds. In order to maintain any place at all, they had to prove that literature was delightful for its own sake, and that Greece and Rome had something worth while to teach to modern men. The struggle was soon over; the pendulum began to swing the other way; the new learning triumphed throughout Europe; and, from the revival of learning down almost to within the memory of men still living, any education without a strong backbone of Greek and Latin classics was no education. Education meant classical education. But human nature rebels against extremes, and, as surely as extremes prevail, so surely will come a reaction.

It is as strange now to reflect that to the conservatives of four

hundred years ago the classics were an intolerable innovation as it is to think that Huxley and his compeers had to struggle so long and so hard for the claims of science to recognition as a force for culture in modern education. And now that the educational sceptre has passed from classics to science, and the scientific spirit dominates every sphere, its more radical advocates would crowd entirely out of the field its most formidable rival, the time-honored humanistic culture, as having no place whatever in an up-to-date education. The pendulum has once more swung as far as it can go. That spirit of science which is intolerant, whether it is philological science that inveighs against natural science, or natural science that will allow no place to philological science, is the primal cause of the violent reactions that come in the lines of education; that readiness for revulsion is one of the things that argue most potently for the final triumph of breadth. If Mr. King is right in his estimate of the purely scientific mind unbalanced by those mental pursuits that feed the fancy, ennoble the sentiments, enable us to enjoy beauty and harmony—and the ardent advocate of the humanities is easily persuaded to believe him—then there is sure to come against the technical scientific education so popular in our day a reaction strong enough to bring about a sweeping revival of the humanities; or, if a compromise can be effected, it may at last stop the swinging pendulum in the middle and produce the harmonious blending of the two cultures that will give us the full, liberal education for which this plea is made.

The world's call is for the man of learning who knows better than anyone else how to do one thing; but he cannot meet the requirements who knows nothing but that one thing; he must know it in its relation to other things; he must see things in their proper proportion. "What science and practical life alike need," says President Butler, "is not narrow men, but broad men sharpened to a point."

The new education, divorced from the training of the humanities, has tried for fifty years, but has confessedly failed to produce that desired result. The pendulum has already begun to swing the other way. The leaders of the so-called "practical" education—men of science, engineers, chemists, doctors—are calling now for students whose faculties have been trained in the discipline of the classics. The scheme that lately looked so practical, putting the

useless humanities in the background as "mere culture" and holding good, plain, money-making ends steadily in view, has been weighed in the balance and found wanting. The greater part of the *School Review* for June, 1906 and 1907, is given up to a symposium on the practical value of the classics as a preparation for the study of engineering, law and medicine. This discussion gives, not the opinions of "unpractical" teachers of Greek and Latin, but the convictions of professors of medicine and of engineering in the University of Michigan and eminent members of the Detroit and Chicago bars. With one voice they all agree that the student of engineering or medical science or law is poorly equipped with only small Latin, and that he might very profitably spend considerable time on Greek before beginning his professional training.

Hear a few words from Dr. Vaughan, Dean of the Medical College: "No one can become a student of anything until he learns how to study. There has been found nowhere a better training for the thinking apparatus of the young than the study of Latin and Greek. The great number and variety in the inflections of noun and verb render close attention an absolute necessity, and this, in itself, is of the greatest value in an educational way. Carelessness and superficiality are incompatible with any thorough study of Greek and Latin. Besides, with the close attention that the student must give to the variations in the structure of words, he soon begins to perceive that these indicate variations in the shade of meaning, and then the joy of study takes possession of the student. His observation is sharpened, his perception becomes more delicate, he finds increased pleasure in the intensity with which he seeks fully and correctly to interpret his author's meaning. And this habit of close observation, of attention to detail, of looking for fine distinctions and shades of difference, and the alertness of mind possessed by an individual of this habit, will be of inestimable service to him, should he choose medicine as his profession, both in his experimental work in the laboratory and at the bedside of his patient. This point in favor of the study of Greek and Latin, it seems to me," says Dr. Vaughan, "is not easily overestimated. Indeed, the progress of medicine is determined largely by the accuracy and precision with which observations are made. The careless or the superficial man is not suited either to the prac-

tice of medicine or to the conduct of experiments for the elucidation of medical problems. The best medical schools are rapidly advancing their requirements for admission, and now demand from two to four years of collegiate work, while the academic faculties are filling these two to four years largely with loosely regulated electives; and I am by no means certain that the medical student of to-day has a better preparation for his professional study than his prototype of fifty years ago [who devoted many years to a thorough study of the classics]. . . . It seems to me regrettable," he concludes, "that at least two years of good solid work in Greek cannot be demanded as an unconditional requirement for admission to our medical schools."

Dr. B. G. deNancrede, the famous surgeon, is even more pronounced in his demand for a classical training for medical men. He further declares that the physician never does, and practically never can, understand the language of his profession, unless he be trained in Latin and Greek. "The medical profession," he says, "is not merely employing Latin and Greek terms, using them at all times, but it is also coining them, and often doing so incorrectly. The way Latin beginnings have tacked on to them Greek endings has come to be an abomination. Such illiteracy is making a laughing stock of the profession in the opinion of men of the most ordinary culture."

That the language of medicine is Greek and Latin I am daily growing more and more convinced. Within the last few days, by favor of Dr. Parham, it has been my privilege to gain a close acquaintance with Dorland's Medical Dictionary. On each of the 836 pages in that great book he defines, on an average, thirty-five terms in more or less common use in medical science—that is, more than 25,000 words; nearly all of them are Greek or Latin words—far more Greek than Latin. When we reflect that the average individual's English vocabulary is but a few hundred words, what ought the medical man's training to be to prepare him for mastering a Greek and Latin vocabulary of 25,000 words! And that number is daily increasing! It would be an actual saving of time for the medical student who proposes to understand the language of his profession to include in his preparation for his medical course a few years of training in the classics; for that is all that would be needed for a comprehension, at first sight, of

the general meaning of these technical terms. When the classically trained medical student comes up against a *toxicogenic bacillus*, or a *pathognomonic symptom*, or a case of *acyanoblépsia*, or *galactotoxismus*, or even of *adenosárcorhábdomyóma*, he knows in an instant, without having to consult a dictionary or to ask for an explanation, just what is meant. In Dorland's Dictionary there are, e. g., sixteen pages of names of muscles—practically all Latin and Greek. What does an *Extensor primi internodii hallucis longus* suggest to the student who knows no Latin, or a *Keratoglossus Arytæno-epiglottideus inferior*, or a *trachelomastoid* to the one who knows no Greek? And how unnecessary it is to explain the nature of these things to the student who does. “

“How many thousands of times,” exclaims de Nancrede, “as I look at the faces of my students, do I see a puzzled look or a wrinkled forehead, because they do not understand the meaning of the technical terms I am employing, and which I must stop to explain! It is not my business to teach the meaning of ordinary technical terms. I should be able to use any technical term that I see fit to illustrate the subject, and the student should, if reasonably conversant with Latin and Greek, after a little reflection be able to understand it. I can hardly recall a technical term that, as a student, I had look up in the dictionary. Thus, lack of knowledge of Greek and Latin proves a serious interference to teaching medicine, because we compel a student to learn a language composed of meaningless terms with which to acquire knowledge of entirely new subjects—subjects to which he should devote all his energies. This is bad enough, but what is still worse is that those who have never studied Latin or Greek very rarely take the trouble to consult the dictionary to ascertain the meanings of scientific terms. They may ask their neighbor what one means, when he probably knows less than they; and so they go through their medical curriculum and through their life not understanding, or actually misunderstanding, what certain terms mean. I find, when I am examining students, that they often do not know the meaning of the technical terms they are employing. In giving the history of a case they use terms that convey the opposite meaning to the one which is intended to be conveyed.”

And that other complaint of de Nancrede's against the mis-

begotten, hybrid formations that men less than half-trained in the languages needed are daily perpetrating: it is bad enough for us to have to use a multi-graph or a printo-graph; and in Baton Rouge we may even patronize a "clothesologist"; but a doctor of medicine ought never to have been guilty of *adneurial* or *adnexo-pexy*; while, *a-erteri-version* is a linguistic monstrosity, as are also *li-en-adin*, *li-enoccele*, *li-en-omalacia*, and all the rest of the *li-en-s*. I suppose one could find a few thousand such centaur-combinations in Dorland.

No other department of science has so frequently, in self-complacent modernism, or so violently assailed the old régime, as engineering, and said: "Away with cultural studies! Away with Greek and Latin and your so-called humanities! We do not need them any longer." But the great engineers, also of the University of Michigan, held their symposium, and even more loudly than the doctors they demanded for the technological students a classical training, both Greek and Latin—not for discipline, for training in clear, sharp, definite English expression, but also for clear and concise thinking along all lines of their profession.

Then came the lawyers, and after them the ministers.

In all these learned professions the emphasis of university preparation is laid, not on the acquisition of a smattering of a number of subjects, cut upon getting a mind well schooled in formal discipline—in the training of the logical powers, and severe habits of close attention, in power of accurate observation, of judgment and reasoning, in the opening of the understanding and the sympathies, and in gaining precision, not only in vernacular English, but also in scientific English. Some of these benefits may be attained through other avenues, but no other single branch of learning so finely combines them all as does the discipline of the Greek and Latin classics. There is certainly no other that could meet the wants, to which Dr. Dock with such vigor has recently called attention, so effectively as a proper training in the humanities as a preparation for the most humane of all our professions.

In these views, striking as they are, there is nothing, after all, very novel. They have been held by generations of school teachers and scholars. They have been only comparatively recently challenged, and that, too, by scientific specialists. And such speeches

now from men who are specialists and scientists, coming so strongly and with such unanimity, are significant. The doctors scoff at school physiology and chemistry; the engineers make little of the scientific studies preparatory to the technological school; our science men at Tulane and elsewhere have always insisted that they would rather have boys get their first taste of their particular science after they came to college; the law professors would surely rather have a pupil who had had his fill of Cicero and Demosthenes and Thucydides than one who had made a premature acquaintance with the Civil Code or the Common Law. That is apparently the universal knowledge of our fifty years of experimenting. We had to have that experience for ourselves. We had to find out from our own national experience what would happen to us, though we might have learned the lesson a quarter of a century earlier from the same experience in Germany. In Germany the two kinds of education ran side by side in different schools—the education of the humanities in the *Gymnasium* leading to the university, and the education of the natural sciences and modern languages in the *Realschule* leading to the polytechnic institute. The *Realschule* dispenses entirely with Greek, reduces the time devoted to Latin by nearly one-half, doubles the time devoted to French, more than doubles that given to the physical and natural sciences, and increases that allotted to mathematics by nearly fifty per cent. This sort of preparation secured admission to the professional schools, but not to the department of arts and sciences.

In 1870 the Government sent to the faculty of the University of Berlin a memorial asking why such a course of training as that of the *Realschule* should not contain the same elements of discipline that had hitherto been attributed exclusively to the classical languages, whose cultivation is the care of the *Gymnasium*. And, if it did, must not the view taken that preparation for the university could be found only in classical studies be considered as superseded?

To those questions the united philosophical faculty of the University of Berlin replied that “the non-classical training is incapable of furnishing a preparation for academic studies equal to that afforded by the classical training; that all efforts to find a substitute for the classical languages, whether in mathematics or

in the modern languages or in the natural sciences, have hitherto been unsuccessful; that, after long and vain search, we must come back finally to the result of centuries of experience, that the surest instrument that can be used in the training of the minds of the youth is given to us in the study of the languages, the literatures, and the works of art of classical antiquity."

Let no one any more bring up the thread-bare argument that those other subjects would be as good instruments as the classics for mental discipline, if they were as well taught as the classics. If they are not as well taught in the German *Gymnasium* and *Realschule* as the classics are, it is useless to dream of their ever or anywhere being capable of such training.

In spite of the unanimous disapproval of the philosophical faculty of Berlin, including every man of science on the staff, the Government threw open the doors of the university to the graduates of the *Realschule*. After ten years of careful experimenting with students who had had some Latin, but no Greek, but, instead, some further training in science and modern languages, the foremost university of the world then unanimously sent up its unqualified condemnation of the change. The professors of natural and physical sciences and mathematics and modern languages and history and the rest, without one dissenting voice, declared that, in spite of the start gained by the students of scientific preparation, they were, as a rule, easily overtaken in the later semesters by the students from the *Gymnasium*, and soon left in the rear. Said Dr. Hofmann, Professor of Chemistry: "For perhaps one semester the men from the *Realschule* may lead, in consequence of their being familiar with a large number of facts, but the relation is soon reversed, and, given equal abilities, the latter almost invariably carry off the honors in the end. The classical men are invariably better trained mentally; they are superior in scientific impulse and apprehension; they have acquired in a higher degree the ability to understand and solve scientific problems."

Others—scientific men, I would remind you—declare, out of the richness of their ten years' experience, that it is impossible for one who has been prepared at the *Realschule* to acquire a satisfactory scientific education. And so, at the end of that period of probation, the faculty again unanimously petitioned the Government to repeal its decree and to admit to that department only

such students as had received the thorough discipline of the classics, as the only adequate training for university study. Appended to that petition you may find the names of Liebig and Helmholtz, Hofmann and Rammelsberg, Mommsen and Curtius, and all the rest.

The pendulum is swinging back once more, you see. And in our country, too, there seems to be a general feeling that, as a result of the so-called "new education," the thinking power of students and their willingness to undertake hard tasks have distinctly lessened in the last few decades. The old attitude of hostility to the classics is changing. The same Charles Francis Adams, who so mercilessly "flayed" both Greek and Latin twenty-three years ago, now laments that he did not get more training along those very lines. He is now even ready to "prescribe one of the classic tongues, Greek or Latin, as a compulsory study to the day of graduation [for every student in college]—the one royal road to a knowledge of all that is finest in letters and art."

The feeling is general that there is among students to-day more effort after accumulation of wisdom, less training for its own sake. What have we been going to school and college for? To learn. To learn what? Facts, figures, dates, substances, thoughts? Not at all; but to learn what there is to learn and how to master it—to acquire the control of every faculty for the quick acquisition of knowledge, to secure the culture of soul and the training of mind needful for the highest degree of usefulness in life. The amount of information that the best student absorbs during his student days is, after all, but a pitiful fraction of the sum of human knowledge. A great deal of it will very likely be accepted as accurate information even before he has graduated, particularly if it is along the scientific lines. That is true even of engineering, the most avowed bread-and-butter education, the most specialized training of all. We ought, therefore, to look more to culture and careful mental training, and then the practical will take care of itself.

Now, I have not meant to advocate any system of education that will make of men's minds great "rag-bags of useless information," or that will sacrifice thoroughness to extensive attainments. But I do mean that no one can make a reasonable claim to true culture who has neglected either "the great vistas of the works of

God," or "the everlasting consolations" of the Greek and Latin classics, or the realms of ideal beauty created by the divine souls of God-inspired men of other times and places. Let the real "new education" be the culture of the humanities *plus* the training of the scientific method.

NOTICE.

[In the last number of the JOURNAL, through the oversight of the author, Dr. F. W. Parham, the following was omitted from his manuscript.—EDS.]

The operation was experimental as far as the brim of the pelvis; here it was tied, cut, touched with carbolic acid, carried through an incision in the peritoneum and removed down to the bladder. The ureter was much enlarged by thickening of its wall and dilatation of its lumen, and contained two round calculi, of the size of small filberts, lying at the last normal narrowing of the ureter about two inches from the bladder.

Orleans Parish Medical Society Proceedings.

President, DR. W. H. SEEMANN.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, *Chairman*.

DR. HOMER DUPUY and DR. H. D. KING.

MEETING OF MARCH 8, 1909.

DISCUSSION ON DR. FOSSIER'S PAPER.

DR. LE BEUF: Would the doctor kindly outline the treatment again, and I would like to know if there is any other than that of high frequency and rest?

DR. ROUSSEL: I wish to refer to the matter of using the X-ray or high frequency every day. My experience has taught me to use it at longer intervals and there would be no injury done the patient.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Increasing the Longevity of Life Insurance Policy Holders.

In an address recently delivered before the Association of Life Insurance Presidents, Dr. Burnside Foster, Chief Medical Examiner for Minnesota of the New England Mutual Life Insurance Company, made an eloquent plea for the use of the money and the influence of the companies in supporting the work of boards of health and in maintaining independent investigations of the many yet unsolved problems of sanitation.

This work would be on analogous lines with that undertaken by the fire insurance companies in establishing and maintaining salvage corps and fire patrols.

Millions of dollars are paid out annually by life insurance companies for death losses resulting from preventable diseases. Some of this money spent in aiding to get rid of preventable diseases would give large direct returns to the companies and accomplish a great deal of good. It would be aiding directly, and also through influence on the Government, to do for human beings what is, to a greater extent, already being done for animals.

We quote from Dr. Foster: "The possibilities of properly directed scientific effort in the control of disease in animals have been amply demonstrated by the United States Government in the work that has been done during the last twenty-five years by the Department of Agriculture in protecting hogs, cattle and domestic fowls from the many pests which formerly were so fatal to these animals, and the millions expended by the Government in this work have been returned many times in the form of increased profits to the farmers and stock-raisers, and have added immensely to our national prosperity. The problems of the control of the diseases of mankind are not very different from the problems of the control of the diseases of beasts. Are not its citizens at least

as great an asset to a nation as its hogs? The Government undertook the matter of protecting the lives of its hogs and cattle because the people demanded it. When the people demand it, it will also undertake to protect the lives of its citizens. It is as simple a problem to drive typhoid fever out of the United States as it was to banish yellow fever from Havana and Panama. The medical profession has for years been pleading for government aid in their efforts to prevent preventable disease. It has pleaded to deaf ears. Let the immense influence of the life insurance companies be brought to bear upon the Government in this matter, and those ears will be deaf no longer."

The argument and the suggestion are good. We, as a profession, and especially those connected with life insurance companies, should take them up and assist thus in obtaining from the general Government what is due to foster and encourage progress in preventive medicine.

The State Society.

The recent meeting of the Louisiana State Medical Society, while not a record-breaker as far as attendance was concerned, and not as largely attended as it should have been, was a success in the main. The scientific work was above the average in character, the members present were earnest and attentive, discussed the papers intelligently and seemed to enjoy the social features of the occasion. The division of the Society into a legislative and a scientific body worked well, especially for an initial effort, as, on the one hand, more time was available for the reading and discussing of papers, and, on the other hand, the business features were disposed of more expeditiously, because it was handled by a more compact body.

Notwithstanding this gratifying success and progress, it must be evident to those of an observing mind that it is a physical impossibility, under the present arrangements, to give adequate time and attention to the ever-increasing number of papers presented.

If a man happens not to be in the room just at the moment his paper is called—and the precise time is frequently uncertain—his article is likely not to be heard at all. Often many of the meritorious papers read are scarcely discussed in the haste to "com-

plete the program." Much of the possible benefit is lost to those in attendance.

Even the reading of abstracts only, and the limitation of discussions, will not remove the difficulty. Three other changes are possible, and to be considered. The first is the division of the scientific body into sections. The next is the addition of a day or more to the duration of the meeting. The last is the subtraction of a large number of the papers to be read.

The further division of the Society's scientific body is not advisable, owing to the comparatively small membership of the Society and the proportionate attendance at meetings. Increasing the length of the session would not be apt to prove popular, as already many either come after the first day or leave before the last day.

There remains, then, only a decrease in the number of papers, and there lies, we believe, the solution of the problem.

Instead of soliciting a large number of miscellaneous papers, as is done at present, those in charge should select, in ample time ahead, a few live subjects, say one for each day, which could be treated on the symposium basis. The information thus derived would be more thorough, more timely, and less time-consuming.

We suggest a trial of this plan for the next annual meeting.

The Charges Against Dr. Simmons.

In the matter of the charges made by Dr. G. Frank Lydston, of Chicago, against the Secretary of the A. M. A., this JOURNAL has, until now, purposely refrained from comment.

With the publication of the Secretary's reply certain points stand clearly out and must be apprehended by all.

Either these charges are grave or they are inconsequential. Dr. Lydston evidently regards them as serious. The Secretary and his friends, by replying, take the same view-point. Dr. Lydston seems to have confirmed his charges with documentary proofs. These two propositions being so, it follows that the personality and motives cut no figure, and further assertions or denials on the part of the Secretary carry no weight. There is but one thing to be done: The Council and the House of Delegates, at the coming meeting of the Association, must confront the Secretary with his

accuser, who must present his proofs in proper form. The Secretary must be prepared to establish their falsity and his innocence of the charges by documentary evidence of higher value and authority. Upon the result, Dr. Lydston must sink into the position of a slanderer, a malign falsifier beneath the further notice of respectable men, or the Secretary must resign all official connection with the Association.

But this trial must be open to every member of the Association who wishes to attend, undimmed by the slightest cloud behind which the smallest suspicion may lurk; in a word, so conducted as to set the question forever at rest in the minds of the enlightened and honorable body of American men who compose the American Medical Association.

CHASSAIGNAC.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

THIRTIETH ANNUAL MEETING LOUISIANA STATE MEDICAL SOCIETY.

The Thirtieth Annual Meeting of the Louisiana State Medical Society was held in New Orleans, May 4, 5 and 6. In accordance with amendments to the by-laws, meetings were held in two sections—business and scientific. All business matters were transacted by the House of Delegates. The House of Delegates held four sessions and disposed of all matters other than scientific work. The meeting at large was very successful, and expressions of satisfaction were heard from all who attended and took an interest in the sessions. The registration was as follows:

From the country parishes.....	124
From Orleans Parish	226
Total.....	350

The following visitors registered at the meeting:

Arthur E. Ballard, Long Grove, Okla.; W. W. Crawford, Hattiesburg, Miss.; M. S. Davie, Dothan, Ala.; H. W. Earthman,

Conroe, Texas; C. C. Fowler, Denver, Col.; Charles Galloway, Mississippi City, Miss.; G. S. Hunter, Bolton, Miss.; D. E. James, Chatham, Miss.; T. Lacy Mastin, Birmingham, Ala.; B. H. May, Jr., Richmond, Va.; S. E. Israel, New Hebron, Miss.; T. Z. Johnson, Holmes, Ark.; D. W. Jones, Brookhaven, Miss.; J. R. McEachern, Monticello, Fla.; Henry G. McCormick, Laurel, Miss.; G. H. Moody, San Antonio, Texas; Z. Moore, Lamison, Ala.; R. O. Summers, Camden, Ala.; W. H. Sutherland, Wheeler, Miss.; W. A. Tolleson, Eufaula, Ala.; F. H. Thompson, Bogue Chito, Miss.; L. D. Wadley, Wesson, Ark.; H. C. Watkins, Quitman, Miss.; H. W. Wickes, U. S. P. H and M. H. Service, New Orleans; W. C. Windham, South Rubyville, Texas; J. Ira Woodward, Picayune, Miss.; T. F. Worthington, Wayside, Miss.; B. F. Young, Austin, Texas.

The following is the report of the House of Delegates to the General Session on the more important business transacted:

REPORT OF HOUSE OF DELEGATES TO THE GENERAL SESSION.

The House of Delegates has held four well-attended meetings during the session, and the following more important business has been transacted:

The annual reports of officers were considered and referred to proper committees.

The Treasurer's report was gone over by the Auditing Committee and found correct.

The reports of Councillors show progress along all lines in their respective districts.

The Committee on Medical Education presented an exhaustive report on medical educational affairs in this State, with the latest figures obtainable from reports of State Medical Examining Boards, showing that Tulane ranks with the best institutions of the country. On adoption of this report, a copy was ordered sent to the Council on Medical Education of the American Medical Association.

The House of Delegates adopted a resolution to the effect that \$150.00 be appropriated to the Carroll relief fund.

The proposition of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL to continue publication of the transactions was accepted.

The State Board of Medical Examiners' report shows that they are working as usual.

Drs. E. M. Ellis, of Crowley; Solon Wilson, of Bogalusa, and J. J. Robert, of Norwood, were elected members of the Louisiana State Medical Society, on recommendation of the Council.

Resolutions of the Orleans Parish Medical Society on the "Prevention of Ophthalmia Neonatorum" was referred to the proper committee.

The House of Delegates begs to report the election of the following officers:

President, 1909-1910—Dr. Charles McVea, of Baton Rouge.

First Vice-President—Dr. John J. Archinard, of New Orleans.

Second Vice-President—Dr. R. M. Littell, of Opelousas.

Third Vice-President—Dr. S. M. D. Clark, of New Orleans.

Councillor, Fourth Congressional District—Dr. J. C. Willis, of Shreveport.

Councillor for Fifth Congressional District—Dr. Thomas Ragan, of Ruston.

Councillor for Sixth Congressional District—Dr. E. K. Sims, of Donaldsonville.

Councillor for Seventh Congressional District—Dr. R. O. Simons, of Alexandria.

Delegates to the American Medical Association—Dr. F. R. Tolson, of Lafayette, with alternate, Dr. Espy M. Williams, of Patterson.

Dr. E. Denegre Martin, of New Orleans, with alternate, Dr. G. Farrar Patton, of New Orleans.

New Orleans was selected as the next place of meeting.

Time of Meeting—First Tuesday of May, 1910.

To fill vacancy on State Board of Medical Examiners, the names of Drs. J. Wofford Sanders, of New Iberia, and Sterling J. Gates, of Franklin, were selected to be forwarded to the Governor.

An honorarium of \$500.00 was voted to the Secretary, and \$50.00 to the Assistant Secretary.

The Chair appointed, as committee to draw up amendments to the by-laws of the House of Delegates, Dr. E. J. Graner, Chairman; Drs. F. W. Parham, J. M. Batchelor, P. L. Thibaut and E. D. Martin.

Votes of thanks were extended to the Chess, Checkers and Whist, Young Men's Gymnastic, and Boston Clubs; to the Medical Department of Tulane University, to the New Orleans Polyclinic,

to the Orleans Parish Medical Society and to the Chairman of the Committee on Arrangement, for courtesies tendered the Society during the meeting.

The addresses of the retiring President and the Annual Orator were ordered published as early as possible.

The election of Prof. Walter Miller, Annual Orator, as an honorary member was confirmed.

The scientific sessions were conducted in accordance with the program, and, owing to the fact that reading and discussion of scientific papers only was allowed before this section, the program was adhered to very much more closely than on previous occasions. From this and other points of view, the establishment of a House of Delegates was proven to be a wise measure. The annual oration was delivered by Prof. Walter Miller, of Tulane University. This address, together with that of the retiring President, are published in this issue of the JOURNAL.

Full text of the business and scientific minutes of the meeting will follow in successive issues of the JOURNAL.

PARISH SOCIETY NOTES

THE BIENVILLE PARISH MEDICAL SOCIETY met in regular session on April 13, 1909, at Arcadia, Dr. C. C. Allums presiding, and the following members present: Drs. F. M. Thornhill, J. Atkinson, S. I. Colvin, H. L. Smith, O. O. Hamner, O. F. Mathews, J. E. Ellis, E. O. Edgerton, J. G. Noles, F. F. Wimberly and F. R. Singleton. Drs. Noles and Wimberly were elected members. Dr. S. I. Colvin, of Gibsland, was elected Delegate to the House of Delegates of the Louisiana State Medical Society; Dr. O. F. Mathews, of Saline, was elected alternate. Dr. Colvin reported "A Case of Malarial Hematuria." Dr. Thornhill then read a very interesting and instructive paper on "Intestinal Nephritis." On motion, unanimously carried, it was the sense of the meeting that Dr. Thornhill's paper be read before the State Society meeting. Dr. Mathews, while unprepared to read his regular paper, gave a very interesting report of a recent case. Dr. O. O. Hamner then read a paper on "Puerperal Eclampsia," which was enjoyed by all. Dr. Allums read a paper on "Strangulated Hernia." The

Program Committee—Drs. Thornhill, Atkinson and Edgerton—reported as follows for the next meeting: Dr. Smith, “Croupous Pneumonia”; Dr. Edgerton, “Burns and Their Treatment”; Dr. Atkinson, “Lobar Pneumonia”; Dr. Mathews, “Lacerated Perineum”; Dr. Neil, “Isolation as a Factor in the Prophylaxis of Typhoid Fever”; Dr. Singleton, “Rheumatic Fever.” The meeting adjourned to meet in Ringgold on July 13.—(F. R. SINGLETON, M. D., Secretary.)

THE MOREHOUSE PARISH MEDICAL SOCIETY met in Mer Rouge, Wednesday, April 21, 1909. The following officers were elected: Dr. J. W. Darby, President; A. D. Alexander, Vice-President; J. B. Vaughn, Secretary and Treasurer. The next meeting of the Society will be held in Collinston, Wednesday, July 21, 1909.—(J. W. DARBY.)

EAST FELICIANA MEDICAL SOCIETY MEETING.—The East Feliciana Medical Society met on May 21 at Clinton, La., and the following officers were elected: Dr. E. L. Irwin, President; Dr. A. J. Roberts, Vice-President; Dr. R. P. Jones, Secretary-Treasurer. The domicile of the Society will be Clinton, where it will meet every two months.

Medical News Items.

NEW ORLEANS COLLEGE OF PHARMACY.—The New Orleans College of Pharmacy held its ninth annual session May 11 and presented diplomas to twenty-four students. The Dean, Dr. Philip Asher, read his report, and said it had been necessary to raise the standard of the college, and the increase of the number of students had proven the wisdom of this. Mr. S. M. Eldridge won the medal donated by the State Pharmaceutical Society, and he delivered the salutatory. The medal given by the faculty was presented by Dr. Jules Lazard to B. S. Bell, of Mississippi.

ANNUAL MEETING OF THE PLAQUEMINE PARISH MEDICAL SOCIETY.—The Plaquemine Parish Medical Society held its annual meeting May 7, and the officers were elected for the ensuing year as follows: Dr. C. Y. Seagle, President; Dr. H. L. Ballowe, Vice-

President; Dr. V. O. Schayot, re-elected Secretary-Treasurer. A number of very interesting papers were read, and it was decided to hold the next meeting at Buras.

INTERNATIONAL MEDICAL CONGRESS.—Readers of the JOURNAL are again reminded that registration for this Congress should be made to Dr. J. H. Musser, Philadelphia, Secretary for the United States, and that this should be done early to secure the information regarding the meeting which takes place in August.

THE NEW ORLEANS SANITARIUM AND TRAINING SCHOOL FOR NURSES formally graduated a class of thirteen on May 28. The exercises were conducted at the Sanitarium and were largely attended by the friends of the graduating class.

THE TEXAS STATE MEDICAL ASSOCIATION met in Galveston May 11, 12 and 13, under the presidency of Dr. H. W. Cummings, of Hearne, Texas. An unusually interesting program was presented, with many papers in each section, which were held separately to cover the field of the program. Among the papers of remark was one by Dr. Charles Mayo, of Rochester, Minnesota, on "*Goiter and Its Surgical Treatment*." A valuable paper, and one of material instruction to the profession, was read in the Section on Medicine by Dr. Oscar H. Plant, associated with the Chair of Physiology in the Texas University. Dr. S. P. Delaup and Dr. Isadore Dyer, of New Orleans, both read papers.

The social side of the meeting was interesting, in that the delights of the surf and of boating were afforded the visitors, as also opportunities for fishing.

Dallas was selected as the next place of meeting, and the following officers were elected: Dr. W. B. Russ, San Antonio, President; Dr. William Wordlow, Plainview, First Vice-President; Dr. J. W. Sargent, McKinney, Third Vice-President. Councillors—First District, Dr. F. P. Miller, El Paso; Fourth District, Dr. S. E. Parsons, San Angelo; Eleventh District, Dr. A. L. Hatchcock, Palestine; Thirteenth District, Dr. J. H. Ball, Crystal Falls; Sixteenth District, Dr. F. D. Boyd, Fort Worth. Trustee, Dr. J. H. Langford, San Antonio. Delegates to the National Association—Dr. E. H. Carey, Dallas; Dr. W. H. Brumby, Austin, and Dr. Frank Paschal, San Antonio.

NEW RULES OF THE NEW ORLEANS BOARD OF HEALTH.—Under date of April 15, the New Orleans Board of Health has promul-

gated a rule that measles shall be included in the list of communicable diseases.

THE LOUISIANA ANTI-TUBERCULOSIS LEAGUE.—The second annual report of the League has been issued, and shows considerable progress. Among those things worthy of note are the establishment of a free clinic on Tulane Avenue, the propaganda on tuberculosis by exhibition and lectures, the increase in the membership to about 300, and the general public interest in the work of the League.

TREASURY DEPARTMENT.—Examination of candidates for the position of House Surgeon in the P. H. and M. H. S. will be held at the Bureau of Public Health, Washington, D. C., Monday, June 14. Candidates must be between 22 and 30 years of age, graduates of a reputable medical college, and must furnish testimonials as to professional and moral character. Examinations will be physical, oral, written and clinical. For further information address the Surgeon-General, P. H. and M. H. S., Washington, D. C.

APPLICANTS FOR LICENSE TO PRACTICE BEFORE THE MISSISSIPPI BOARD.—There were 245 applicants before the Mississippi Board of Medical Examiners for license to practice, and 110 passed, which means 65% failed. A committee has been appointed by the Board to try and find out how the questions were stolen.

MEETING OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS.—The National Association for the Study and Prevention of Tuberculosis met in Washington, May 12-14. Dr. William Osler addressed the meeting, and the following officers were elected: President, Dr. E. J. Janeway, New York; First Vice-President, Dr. E. T. Dohne, New York; Second Vice-President, Dr. Henry Sewell, Denver; Secretary, Dr. Henry Barton Jacobs, Baltimore; Treasurer, Dr. Geo. A. Sternberg, Washington.

THE GRADUATING EXERCISES OF THE NEW ORLEANS COLLEGE OF DENTISTRY were held in Tulane Theatre May 18, with eighteen graduates. The Dean, Dr. A. G. Friedrichs, gave a short résumé of the work done during the past ten years. The annual oration was delivered by Prof. Morton A. Aldrich, Ph. D., of Tulane University.

HEALTH CONFERENCE.—There will be a health conference called by the State Board of Health at Alexandria, June 9, 10, 11. All parish and city health officers will meet to discuss tuberculosis and the methods of battling against it, the sanitary code, the pure food and drug act, and, in general, all health subjects.

GRATIFYING REPORTS ON PRESBYTERIAN HOSPITAL.—The quarterly meeting of the Board of the Presbyterian Hospital was held on May 13, and the report of the Medical Board shows an increasing number of patients treated from month to month.

THE CRIMINAL INSANE.—The suggestion of Dr. Clarence Pierson, of the Louisiana State Insane Asylum at Jackson, that Louisiana should separate its criminal insane from those who have been guilty of no crime, is so in accordance with the practice elsewhere that it will strongly appeal to the Legislature when it comes up before that body. This is done in all foreign countries, and the methods pursued in regard to the care and treatment of these two varieties of the insane are radically different. Dr. Pierson's suggestion is an admirable one.

THE ALASKA-YUKON PACIFIC EXPOSITION.—The Alaska-Yukon Pacific Exposition, which opens June 1, announces that it has an Emergency Hospital and a room for visiting physicians, where they will receive their mail. Doctors intending to visit the Exposition can have their letters addressed care of the Hospital.

MEETING OF THE AMERICAN MEDICAL EDITORS' ASSOCIATION.—The American Medical Editors' Association will meet in Atlantic City, June 5-7. Headquarters at the Marlborough-Blenheim Hotel.

BOGALUSA HOSPITAL.—The new hospital at Bogalusa, La., is modern in all its equipments and can accommodate seventy-five patients.

PERSONALS.—Dr. J. H. Dillon and Dr. H. P. Jones have returned from a trip to Cuba, and report there is no fever on the island.

The JOURNAL acknowledges the invitation of the Detroit College of Medicine to attend its forty-first annual commencement.

Dr. J. W. Gray, of Clarksdale, Miss., has been appointed a delegate to the A. M. A.

Dr. H. Wolferstein Thomas, of the Liverpool School of Tropical Medicine, was a visitor to the City Board of Health on May 1.

Dr. Thomas expressed himself as much impressed with the work of the City Board of Health. His purpose in visiting New Orleans was to study methods of preserving the public health here and combatting contagious and infectious diseases.

Dr. John J. Cronin is conducting a lecture and laboratory course in School Hygiene and Sanitation at the New York Post-Graduate Medical School.

The Louisiana State Medical Society contributed \$150 towards the fund for Mrs. James Carroll.

The Alumni of Jefferson Medical College are organizing a suitable souvenir for Prof. James W. Holland to commemorate his many years of service in the institution. Voluntary subscriptions are being solicited for this purpose.

REMOVALS.—Drs. L. Elliott and A. S. Keblinger, formerly of Alexandria, La., have removed to Jackson, La.

Dr. E. DeNux, from Bunkie to Cottonport, La.

MARRIED.—On April 27, 1909, Dr. Dave M. Haspel to Miss Leonie Ber. Both of this city.

The wedding of Dr. William McCutty James to Miss Mary Gurley McCulloch took place on May 1, 1909, at Ancon, Canal Zone, Panama.

Dr. Mortimer Harvie Jordan will be married to Miss Lucile Gaston on the 9th of June, 1909, at Birmingham, Ala.

DIED.—On May 5, 1909, William P. Brewer, M. D., in the sixty-seventh years of his age. Dr. Brewer was a prominent physician and veteran of the Civil War.

On May 18, 1909, Dr. Allen S. King, at Morgan City. Dr. King graduated from Tulane in 1901.

TULANE NOTES.

THE SUMMER COURSE OF THE UNDER-GRADUATE DEPARTMENT began May 24. This course, for the first time, was formally organized with Professor J. T. Halsey as Dean, Dr. R. M. Van Wart as Secretary. All of the laboratory branches except chemistry are embraced in the schedule, as well as most of the practical branches.

THE SUMMER COURSE OF THE NEW ORLEANS POLYCLINIC, with Dr. Homer Dupy as Chairman, opens June 1 with a full staff of

teachers made up from the assistants in the Post-Graduate Department.

THE COMMENCEMENT EXERCISES OF THE UNIVERSITY were held on May 19, and 103 men were graduated from the Medical Department. The class of 1909 held class exercises on May 15, initiating this custom for the department. In the morning of that day vines taken from the Hutchinson Memorial, on Canal Street, and from the grounds of Mrs. Ida Richardson, were planted against one of the walls of the new Richardson Memorial on the Tulane Campus.

In the evening a formal program of exercises was undertaken, consisting of addresses and glee club productions, class prophecy, etc., and a large audience greeted this initial success.

The class of 1909 organized permanently, with the idea of holding a reunion in 1914, with the following officers: President, W. J. Eroche; Vice-President, J. C. Hardy; Recording Secretary, Eli Watts; Corresponding Secretary, George Faivre. All New Orleans resident members of the class were constituted an Executive Committee, with Dean Dyer as Honorary Chairman.

THE DELGADO MEMORIAL at the Charity Hospital, which was given specifically for improved clinical and operative facilities for the Tulane Medical Department, was opened to patients during the month of May. This building has two surgical amphitheaters, and provides beds for about 150 patients. The general supervision is under the direction of Professor Ernest S. Lewis in gynecology, and Professor Rudolph Matas in surgery.

THE CHARITY HOSPITAL ALUMNI, all graduates of Tulane Medical Department, met on May 3 and banqueted afterwards. Dr. C. N. Chavigny, of New Orleans, was elected President; Dr. Allen Eustis, of Abbeville, First Vice-President; Dr. W. E. Sistrunk, of Lake Charles, Second Vice-President; Dr. L. H. Landry, of New Orleans, Secretary; Dr. W. P. Bohne, of New Orleans, Treasurer, and Dr. Espy M. Williams, of Patterson, Historian, with Drs. J. M. Batchelor, H. B. Gessner and S. M. D. Clark, all of New Orleans, as Executive Committee.

THE TEXAS ALUMNI OF THE TULANE MEDICAL DEPARTMENT held a meeting in Galveston during the session of the Texas State Medical Association on May 12, and organized an association. The

dues were fixed at \$1.00 per annum, and the following officers were elected for temporary organization: Dr. Russell Caffery, of San Antonio, President; Dr. J. R. Gillam, of Mart, Texas, Vice-President; Dr. James O. Hill, of Houston, Texas, Secretary-Treasurer, with Dr. H. C. Moore, of Houston, and Dr. L. G. Wille, of New Braunfels, all together making an Executive Committee.

This committee was instructed to draw up plans for a permanent organization and to present the same at the next meeting of the Alumni Association, or to submit the same for adoption by correspondence. It is estimated that there are 450 Tulane graduates in Texas, and most of these are expected to join the organization.

MEDICAL CLASS ANNIVERSARY.—The Medical Class of 1899, of Tulane University, held its tenth anniversary banquet at the Denechaud Hotel on May 6. The members of the class called this their "tin wedding," and enjoyed it immensely. Appropriate souvenirs, in the way of tin spoons, were given to those present.

THE NEW ORLEANS COLLEGE OF DENTISTRY has been officially taken in by the university, and will hereafter be known as the "Dental Department of the Tulane University of Louisiana," with Dr. Andrew G. Friedrichs as Dean. The reorganization of this school is in hand, and the announcement of the same should appear about the 1st of August. The faculty is to be made up of Professors Friedrichs, Archinard and Magruder, of the old school, and of the members of the Medical Department whose branches are taught to dental students. In addition, a full list of associates and instructors will be given shortly.

PERSONALS.—Professor Irving Hardesty, Ph. D., head of the Department of Anatomy at the University of California, has been appointed to the head of the Department of Anatomy at Tulane, and comes with the highest endorsement to fill this chair for the session of 1909-10 and thereafter.

Dr. S. C. Sykes, of Galveston, was in New Orleans for a few days to attend the Tulane commencement.

Dr. J. Fred Combe, of the class of 1889, was in New Orleans in May. Dr. Combe is the Mayor of the City of Brownsville, Texas.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Surgical Diseases of the Abdomen With Special Reference to Diagnosis, by RICHARD DOUGLAS, M. D.. Second Edition, Revised and Enlarged, Edited by RICHARD A. BARR, A. B. M. D. P. Blakiston & Son Co., Ltd., Philadelphia, 1909.

The first edition of Dr. Douglas' book appeared in 1903 and was immediately accepted as one of the most valuable contributions to abdominal surgery of recent years. The work was characteristic of the author, reflecting his accuracy and thoroughness as a diagnostician and a clear, concise method of expression for which he was well known. The present edition has been prepared by Dr. Richard A. Barr, a former assistant of Dr. Douglas, who states that throughout the book he has endeavored to preserve the original as far as possible, and only adding such as was required to bring the text up to date.

To each chapter is appended a fair bibliography, quite as full as could be expected in such a compact volume.

The entire work is essentially clinical. The only feature that could have been improved upon would have been the introduction of a more detailed statement of the pathology of abdominal diseases.

The work deserves to find the prompt recognition accorded the original edition.

MILLER.

Diseases of the Nose, Throat and Ear, by Francis R. Packard, M. D.

A text book of the class designed for the service of the student and general practitioner, in which the author, who is an indefatigable student and investigator, has endeavored to present the essentials of nose, throat and ear diseases in thorough and concise detail.

The text covers 357 pages richly illustrated, and includes a study of the technic employed in examination and treatment of these special organs, as well as the anatomy and pathology and practical therapeutics. A good text book for students and an instructive review of modern methods for the practicing specialist.

DER. AND K.

Transactions of the American Surgical Association, edited by Richard H. Harte, M. D. Printed and for sale by William J. Dorlan, Philadelphia.

This, the twenty-sixth volume of transactions of the Association, is indeed worthy of a thorough perusal. The articles, as interesting as they are numerous, emanate from a galaxy of American surgeons.

We surely miss the names, among the contributors, of Matas, Souchon and Parham, who form part of that distinguished coterie.

Mears' paper on reminiscences of the early days of the American Surgical Association will please all who are interested in the welfare of that honorable body. It is replete with historical data, from which we cull the fact that our late beloved Richardson, who had been a student of Samuel D. Gross, read a paper on Wounds of the Intestines, sent by his master, who was then (1884) in his last illness.

Mears also contributes a highly entertaining article on modern Medicine and Surgery in the Orient.

Perforative peritonitis, gastric and duodenal ulcers, diseases of the kidneys and ureters and other equally vital subjects are presented in a most instructive manner.

Barrow, of Lexington, Ky., reports, with photograph, the case of a large kidney stone, removed with complete recovery. The calculus weighed one pound and two drachms.

A commendable feature of this volume is the index, admirably arranged, to Vols. I—XXVI, from 1880-1908. The book is an ornament and asset to any medical library.

LARUE.

Publications Received.

P. BLAKISTON'S SONS & COMPANY, Philadelphia, 1909.

Refraction and How to Refract, Including Sections on Optics, Retinoscopy, the Fitting of Spectacles and Eye Glasses, etc., by John Thorington, A. M., M. D. (Fourth Edition).

JOHN BALE SONS & DANIELSON, LTD., London, 1909.

The Etiology and Nature of Cancerous and Other Growths, by W. T. Gibson, A. R. C. S.

G. P. PUTNAM'S SONS, New York and London, 1909.

The Emanuel Movement in a New England Town, by Lyman P. Powell.

THE YEAR-BOOK PUBLISHERS, Chicago, 1909.

General Medicine, (Vol. I) by Frank Billings, M. S., M. D., and J. H. Salisbury, A. M., M. D.

General Surgery, (Vol. II), by Frank B. Murphy, A. M., M. D., LL. D.

MISCELLANEOUS.

Eradicating Plague From San Francisco. A Report of the Citizens' Health Commission and An Account of Its Work. (Prepared by Frank Morton Todd).

The Prophylaxis of Yellow Fever, by G. M. Guiteras. (Washington Government Printing Office, 1909).

Report of the Committee on Improvement of Existing Houses and Elimination of Insanitary and Alley Houses, by Wm. H. Baldwin, Chairman; *Report of the Commission on Social Betterment*, by Geo. M. Kober, M. D., LL. D.; *Report of the Commission on Building of Model Houses*, by Geo. M. Sternberg, M. D., LL. D.; *Industrial and Personal Hygiene*, by Geo. M. Kober, M. D., LL. D. (Presidents' Homes Commission, Washington, D. C.).

The House-fly at the Bar—Indictment Guilty or Not Guilty? (The Merchants' Association of New York).

Reports of the Central London Throat and Ear Hospital. (Vol. I). (Adlar & Son, London, 1908).

Proceedings of the Orleans Parish Medical Society, 1908. (L. Graham Co., Ltd.).

Annual Report of the Bureau of Health for the Philippine Islands. (Manila Bureau Printing Co.).

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR APRIL, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	3	2	5
Intermittent Fever (Malarial Cachexia)	1	3	4
Smallpox.....			
Measles			
Scarlet Fever.....	8	1	9
Whooping Cough.....	2	2	4
Diphtheria and Croup.....	3		3
Influenza	3		3
Cholera Nostras.....			
Pyemia and Septicemia		2	2
Tuberculosis.....	37	47	84
Cancer.....	17	6	23
Rheumatism and Gout	2	1	3
Diabetes	1	2	3
Alcoholism	3	1	4
Encephalitis and Meningitis.....	2	4	6
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	19	3	22
Paralysis	1	1	2
Convulsions of Infants	1	1	2
Other Diseases of Infancy	13	9	22
Tetanus.....	4		4
Other Nervous Diseases	1	1	2
Heart Diseases.....	28	31	69
Bronchitis	2	3	5
Pneumonia and Broncho-Pneumonia.....	20	24	44
Other Respiratory Diseases.....	6	2	8
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach	7	5	12
Diarrhea, Dysentery and Enteritis.....	27	11	38
Hernia, Intestinal Obstruction.....	5		5
Cirrhosis of Liver.....	4	1	5
Other Diseases of the Liver	5	2	7
Simple Peritonitis	2	2	4
Appendicitis.....	1		1
Bright's Disease	17	22	39
Other Genito-Urinary Diseases.....	5	1	6
Puerperal Diseases	5	4	9
Senile Debility.....	10	7	17
Suicide	2		2
Injuries.....	25	9	34
All Other Causes.....	17	3	20
TOTAL.....	321	213	534

Still-born Children—White, 28; colored, 20; total, 48.

Population of City (estimated)—White, 265,000; colored, 97,000:
total, 362,000.

Death Rate per 1000 per annum for Month—White, 14.53; colored,
26.35; total, 17.68.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.04
Mean temperature 69.
Total precipitation 8.08 inches
Prevailing direction of wind, southeast.

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